

THE MACDONALD JOURNAL

FEBRUARY 1987

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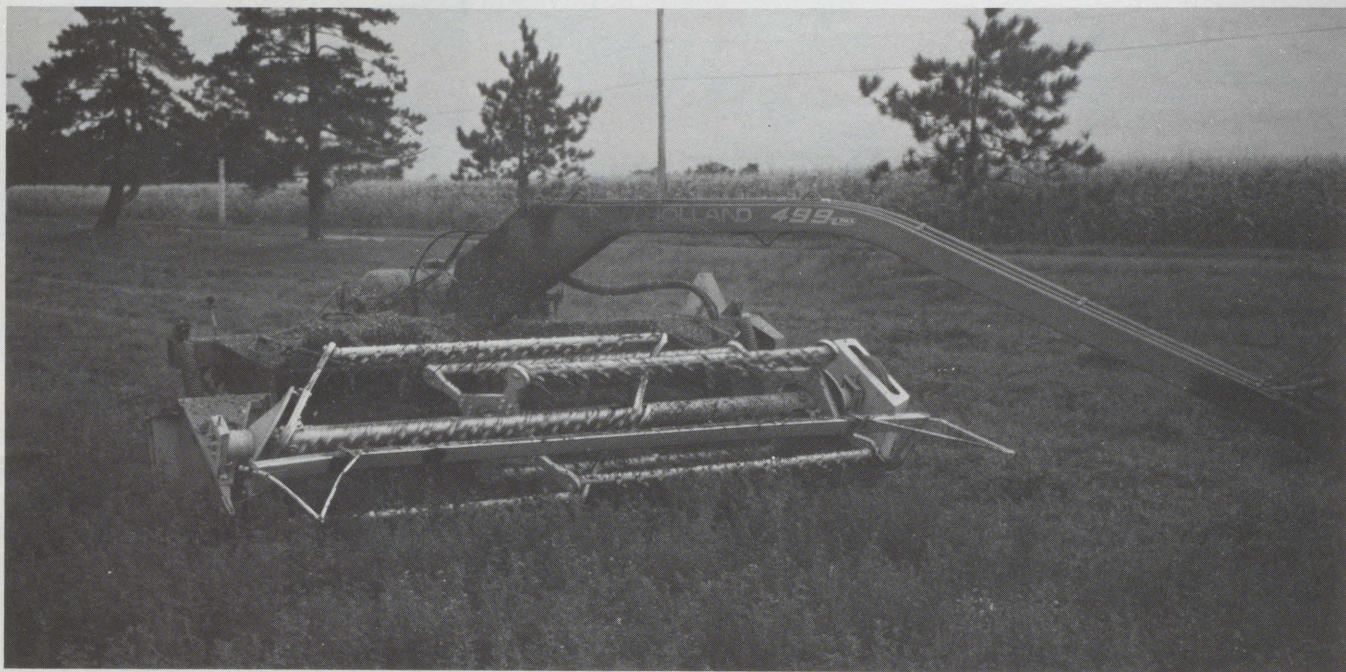
MAR 13 1987

NOT JUST ANOTHER BARN!



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THE MACDONALD JOURNAL

February 1987

Volume 48, No.1

Content

Editor

Hazel M. Clarke

Regular Contributors

Emeritus Professor R.H. Estey
Department of Plant Science
for "Fun Fact Fable Fiction"

Martlet House
for news from the Graduates'
Society, Development and
Campaign Offices

Dr. R.K. Stewart
Associate Dean, Research
for "Research Reports"

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Professor Helen R. Neilson
Gordon Skilling
David M. Stewart
Lucille Wakefield
Greg Weil
Kate Williams

Computer Consultant

Gloria Sola

Cover photo by

Steve Tinker

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A day to celebrate! The cattle moved into their new facilities on November 18, 1986. Special features in this issue describe the importance of our new cattle teaching and research facilities which are also shown on the cover.

DEAR READERS

To start this letter off on a positive note we know from recent subscriptions, renewals, letters, and personal comments that many of you have enjoyed *The Macdonald Journal* over the years, particularly since it became a quarterly in 1982. We know, too, that most staff at Macdonald willingly contribute articles or time for interviews so that you can keep in touch with what is happening at the college and, more and more, graduates are also contributing short items, long letters, or time for interviews so that we may keep in touch with them. As well we have been receiving some financial support from sponsors of the Journal whose names appear in each issue.

We certainly appreciate their support, as well as that of our readers and writers. Unfortunately, this support is not sufficient to offset the increasing demands on a very limited financial budget. Limited finances have curtailed our ability to promote the Journal in the manner continually undertaken by commercial publications and as a result our circulation continues to be low. Too low, at present, to attract sufficient advertising to help defray costs.

We must cut costs, we must try to reach a large audience in Quebec, the rest of Canada, and abroad. We must also keep in touch with our graduates. Our goal over the next couple of years is to attempt to place *The Macdonald Journal* on a self-supporting basis, and we have taken the first steps in that direction. We have formed a new Macdonald Journal Committee made up of graduates, friends of the college, and staff. May I briefly introduce those members who are not McGill-Macdonald staff.

Representing our graduates we have Joy MacLaren, BSc (HEC) '44. Since graduating from Macdonald, Joy MacLaren, who lives in Ottawa, has, apart from being class agent, taken a keen interest in the college and has always played a leadership role in many programs at Macdonald. As a former publisher of *The Buckingham Post*, her experience in publishing is of considerable assistance. Mrs. MacLaren is currently a governor of Carleton University, a member

of the advisory board of the Fathers of Confederation Charlottetown Festival, and a Director of the Canadian Guide Dogs for the Blind.

Another Macdonald graduate and publisher, Mrs. Lucille Wakefield received her BSc (Agr) in '49. Mrs. Wakefield is the publisher of two magazines: *Le Bulletin des Agriculteurs* and *Mon Jardin*, with a circulation of over 100,000 and 20,000 respectively. First published in 1918, *Le Bulletin*, a monthly publication, has been in Mrs. Wakefield's family since 1934. We welcome her knowledge of publishing, and of agriculture and farming - the Wakefields have a farm near Bromont where they raise Thoroughbreds and beef cattle.

Advisor Lucy French's rural roots are in Dundee, Que., and she, too, came to Macdonald to take the then popular Homemakers and Handicrafts courses. Mrs. French now lives in Lachine and, as President of the Quebec Women's Institutes, represents some 1,500 readers.

Next are friends of Macdonald whose business is communications. Marc Côté, well-known to many of our readers as the CBC's "Radio Noon" Food and Farm commentator, Marc is familiar with Macdonald College, the Journal, and the Quebec rural community.

Editor and co-publisher of the *West Quebec Post*, a weekly newspaper published in Buckingham, Que., Jim Creskey is a busy man of many talents. Originally from the United States, Jim has worked for the CIL's *The Oval*, lived on a farm near Ripon, and joined the *Post* in 1981. His knowledge of new printing techniques has been invaluable.

Gordon Skilling has close to 30 years of experience in the magazine business: 11 years in commercial publishing and 17 years in association publishing. Gordon knows every facet of the business. He's been a publisher and an editor, and has tried his hand at everything except selling adver-

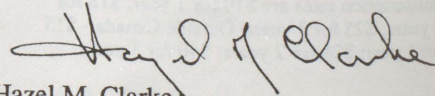
tising space. As a friend of Macdonald, we appreciate his time and interest.

As Vice-President and Director of CETA Travel, David M. Stewart has considerable experience in the travel business and in the publishing of brochures and other literature pertaining to it. We welcome his assistance on our committee.

McGill-Macdonald staff on the committee are: Professor Bruce Baker, Laurie Baker, Chairman of the committee, Dr. Roger Buckland, Marcel J. Couture, Robert Gales, Henry Garino, Professor Helen Neilson, Greg Weil, Kate Williams, and myself.

This February issue of *The Macdonald Journal* is, in part, the culmination of many of the ideas and suggestions put forth by members of the committee: professional layout and design, new printing techniques, the use of colour, and a start on an increased use of advertising (a new rate card is available upon request - from business cards to full colour, full pages ads: all will be welcome). We have also increased our subscription fees, and in the quest for higher circulation, we are mailing this issue to all Macdonald graduates and a select group of other potential readers. If you are already receiving the magazine, pass it on; if not, we hope you will take advantage of the attached envelope, fill in the questionnaire and return it to us along with a cheque for a subscription to the new Macdonald Journal. For those already receiving the magazine, we would also appreciate your answering the questions and sending them to us. Your answers will help us plan future issues, and, again with the future in mind, we have started a special endowment fund which, as friends of the magazine contribute to it, we hope will grow, thus helping to ensure the success and survival of the magazine in the years to come.

Sincerely



Hazel M. Clarke
Editor, The Macdonald Journal

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Editorial

Vice-Principal's Message:

"Macdonald at the Leading Edge"

It is with great pleasure that I announce the opening of our new cattle teaching and research facilities. These facilities represent Phase I of the farm redevelopment program, with Phases II and III being new swine and poultry facilities respectively.

On November 18, 1986, after some 75 years in the old barn, our dairy herd of 88 milking cows was moved to the new facilities. This was followed shortly afterwards by the move of our replacement heifers and beef cattle, with the feedmill going into operation on December 15, 1986.

This facility has put Macdonald College at the leading edge with respect to livestock facilities. The entire design process has enabled us to provide the latest in teaching and research facilities in support of our programs and, at the same time, to be leaders in the application of new technology in order to benefit the communities which we serve. The new area also has laboratories and classrooms which will enhance our teaching and research activities.

The master plan for the farm area not only includes the development of the livestock and poultry facilities but also calls for new and improved space in the areas of soil science, agricultural engineering and wildlife management. The redeveloped facilities for soil science were completed during the summer of 1986 with those for agricultural engineering and wildlife management being scheduled for completion in the summer of 1987.

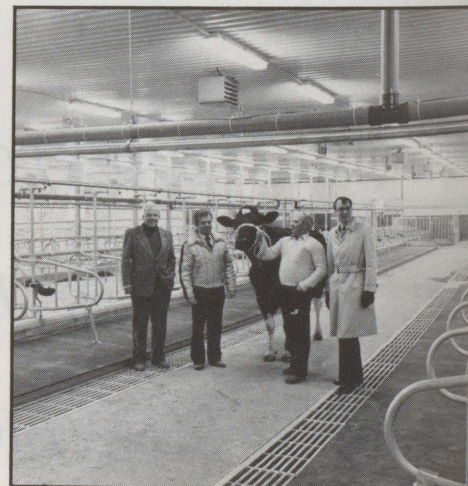
These important developments at Macdonald College are supported primarily by our highly successful McGill Advancement Program (MAP) and grants to the university from the Government of Quebec. I would like to thank all of our friends, alumni, and staff who have contributed so unselfishly to this and other MAP projects at Macdonald. In particular, I want to say a



A view of the west side of the new cattle teaching and research facilities.

special thank you to Mr. R. Howard Webster without whose leadership and support this project would not have been possible. Thank you, Mr. Webster, on behalf of Macdonald College and all the communities we serve at home and abroad.

Roger B. Buckland
Vice-Principal (Macdonald College) &
Dean, Faculty of Agriculture



Rudi Dallenbach, Farm Director; Bruce Downey, Chairman, Department of Animal Science; Macdonald Dijaz Mitzi Amy; Gordon Beaulieu, Herdsman, and Roger Buckland, Dean, Faculty of Agriculture, surveying the new dairy barn.

NOT JUST ANOTHER BARN!

by Rudi Dallenbach

Farm Director

For several years a number of interested faculty members studied the feasibility of renovating the old dairy barn built some 75 years ago. Over time it became evident that the old barn could be put to better use. The Agricultural Engineering Department was in need of better teaching and workshop space, and the Renewable Resources Department needed winter quarters for their expanded Wildlife programs.

Some three years ago the Agricultural Project Planning Committee was created with the mandate to develop plans for new

livestock facilities. Following many working hours drafting plans, travelling to see other facilities across Canada, the United States, and abroad, months of construction, and countless sleepless nights on the part of some, a modern Dairy and Beef Research and Teaching Facility has emerged.

Many factors had to be considered prior to turning the first sod. To mention a few: the location of the new building in relation to existing facilities, the number of animals needed for research in relation to the

number of animals per hectare of available land, the labour availability and cost versus increased mechanization, land use, and environmental impact and, of course, most of all the availability of funds.

The new facility was not to be just another barn. It had to conform to the latest standards for animal research as proposed by the Canadian Animal Care Committee which gives advice on all animal research in Canada. It had to fulfil the requirements imposed by the Quebec Ministry of the Environment re distance from other buildings and disposal of manure. Access has to be accorded to students for daily farm practice, lectures, and laboratory work. Consideration had to be given to demonstrate to farmers some of the rapidly changing technology in animal housing. And, last but not least, the facility has to be open to the public at large - those people who have supported and visited our farm for many years in the past. Throughout the planning phase, the importance of building a facility which would conform to new animal housing methods and be animal friendly was emphasized.

It is our firm belief that we have achieved what we set out to do. On November 18, 1986, Gordon Beaulieu, our Herdsman, led Macdonald Dijax Mitzi Amy, his favourite cow, into the new facility to continue on her fourth over 10,000 kg record. Within one hour some 88 cows and their offspring munched away on feed supplied from the new feed centre.

I would like to invite you now to walk with me through the new facility and learn about the functions of each area.

1. The main entrance leads you into the service area consisting of the Herdsman's office, the place where the many records are kept and analyzed, and management decisions are taken. Right next to it you find the staff room with the two breeding wheels which Patti Ward keeps spinning. All staff have access to the health and breeding status of

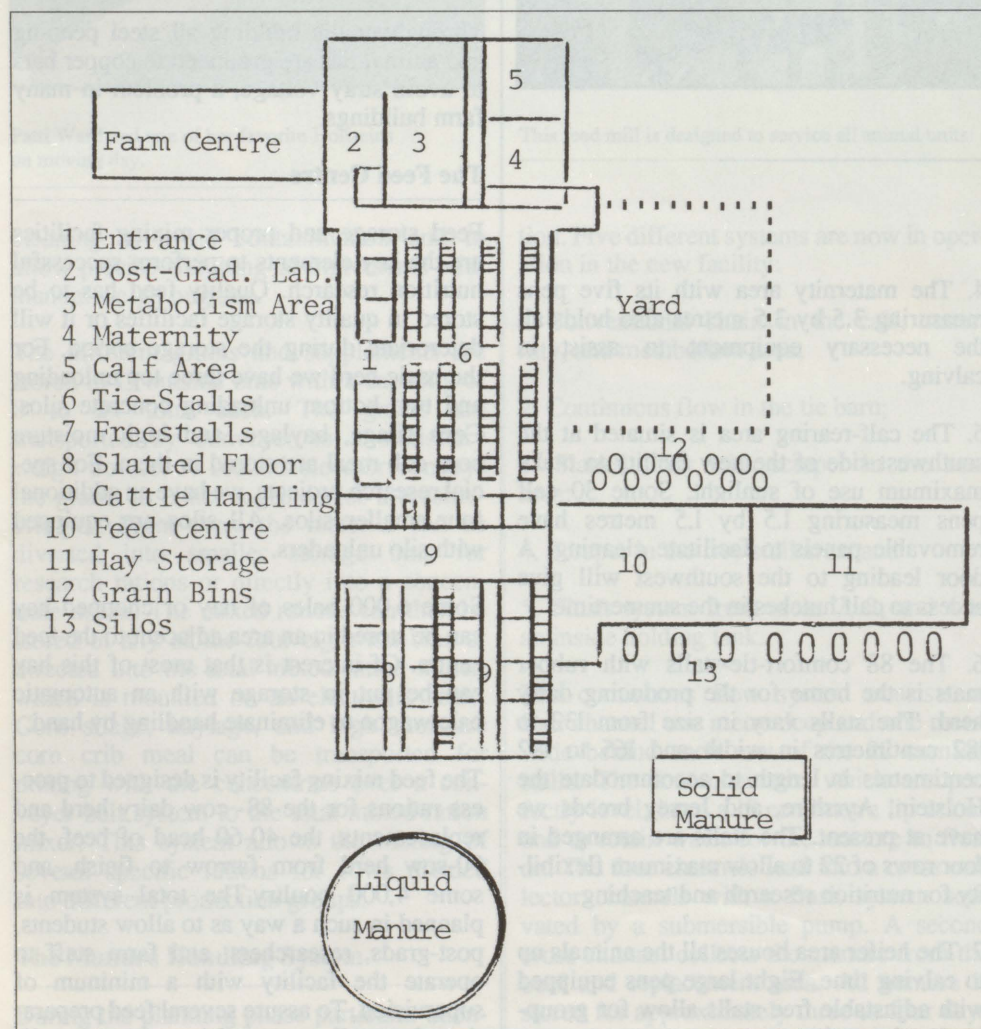
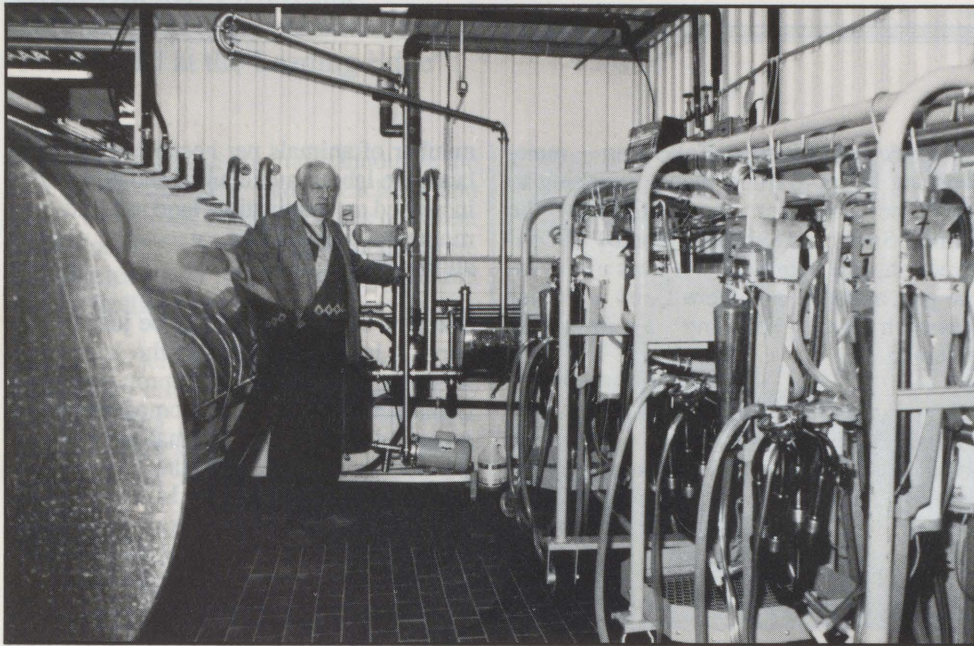


Fig. 1. Floor plan of new cattle teaching and research facilities.



Rudi examines new milking equipment in the dairy.

the herd. Next to it you find the dairy with its high-tech equipment. A 3,200 litre Mueller Bulk Tank cools the milk most efficiently using a heat recovery system producing from each litre of milk one litre of 70 degree C washing water. The eight Universal milking units are equipped with automatic take-off units to avoid overmilking and to allow one milker to operate four units and teach students at the same time. Other rooms in the service area are an electrical room with all the control panels, the vacuum pumps, and an emergency generator, the storage room for equipment and medications, and two washrooms with showers.

2. The research area consists of a post-graduate laboratory, an area with a walk-in freezer and refrigerator, and an area to analyze and evaluate the results of the various research projects.

3. The metabolism area with its eight modern individual large animal crates and all the necessary equipment to undertake basic nutrition research with ruminants.

4. The maternity area with its five pens measuring 3.5 by 3.5 metres also holds all the necessary equipment to assist in calving.

5. The calf-rearing area is situated at the southwest side of the new facility to make maximum use of sunlight. Some 30 calf pens measuring 1.5 by 1.5 metres have removable panels to facilitate cleaning. A door leading to the southwest will give access to calf hutches in the summertime.

6. The 88 comfort-tie-stalls with rubber mats is the home for the producing dairy herd. The stalls vary in size from 132 to 182 centimetres in width and 165 to 182 centimetres in length to accommodate the Holstein, Ayrshire, and Jersey breeds we have at present. The stalls are arranged in four rows of 22 to allow maximum flexibility for nutrition research and teaching.

7. The heifer area houses all the animals up to calving time. Eight large pens equipped with adjustable free stalls allow for grouping by size and age.

8. The beef area consists of 16 pens on a slatted floor holding up to four animals each, half of which are fitted with magnetic Calan gates restricting each animal to its own manger space.

9. The cattle handling area is centrally located and equipped with a livestock scale and squeeze. The penning is adjustable to facilitate cattle handling and can be easily removed when not in use.

Of particular interest and importance in a research facility is the independent ventilation system for each area. The cattle population varies substantially from one research project to another. Some projects may require specific levels of humidity and temperature.

Throughout the building all steel penning and animal ties are grounded to copper bars to avoid stray voltage, a problem in many farm buildings.

The Feed Centre

Feed storage and proper mixing facilities are the key elements to perform successful nutrition research. Quality feed has to be stored in quality storage facilities or it will deteriorate during the storage period. For the basic herd we have three top unloading and two bottom unloading concrete silos. Corn silage, haylage, and high moisture corn cob meal are stored in them. For special research projects, we have an additional four smaller silos. All silos are equipped with silo unloaders.

Some 6,000 bales of hay or chopped hay can be stored in an area adjacent to the feed centre. Of interest is that most of this hay can be put in storage with an automatic bale wagon to eliminate handling by hand.

The feed mixing facility is designed to process rations for the 88-cow dairy herd and replacements, the 40-60 head of beef, the 70-sow herd from farrow to finish, and some 4,000 poultry. The total system is planned in such a way as to allow students, post-grads, researchers, and farm staff to operate the facility with a minimum of supervision. To assure several feed preparations in small amounts, the system is self-



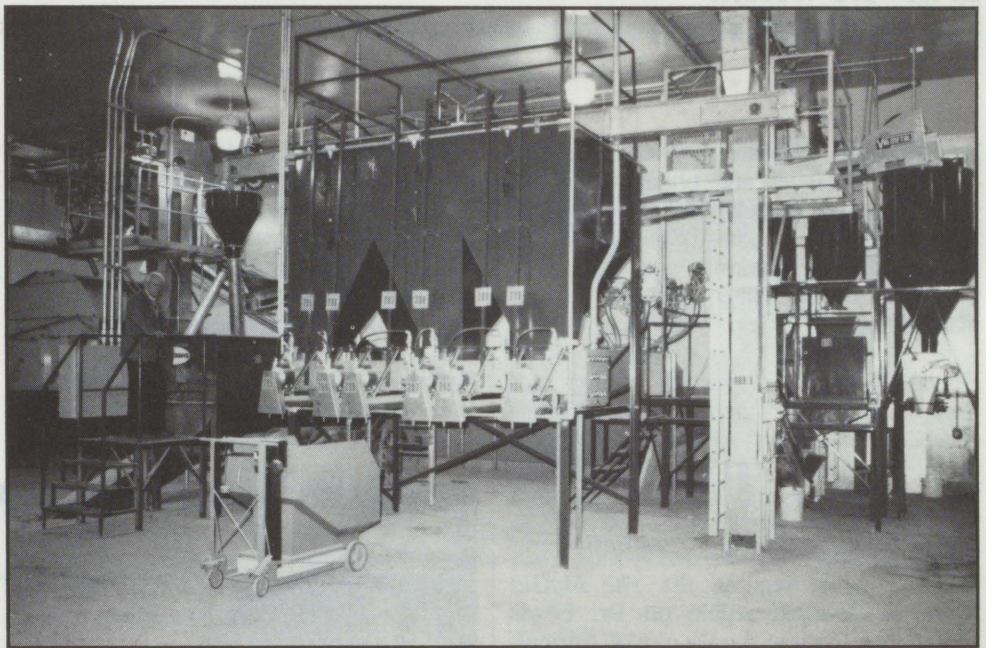
Patti Ward and one of her favorite Holsteins on moving day.

cleaning to avoid contamination and to allow precise weighing of ingredients with manual weigh buggies.

The different grains and supplements are stored in 13 outside bins with a capacity of 8 to 24 tons each. The grains are transported by conveyor to a stationary weigh device. A second elevator conveys the grains to either a grinder or a crusher-crimper. From there the material can be diverted into smaller storage bins for research rations or directly into a concentrate mixer. The mixed rations can then be stored in any of the four eight-ton bins or directed into the total mixed ration mixer, which is mounted on an electronic scale. Corn silage, haylage, and high moisture corn crib meal can be transported for mixing with the concentrate over a conveyor belt system to the total mixed ration mixer. This system allows the mixing of several specific rations for cows divided into different production groups.

The Manure Handling System

During the planning phase particular attention was given to maximize the value of manure and reduce soil, water, and air pollu-



This feed mill is designed to service all animal units: cattle, swine, sheep, and poultry.

tion. Five different systems are now in operation in the new facility:

1. Conventional chain in the calf, maternity, and metabolism area;
2. Continuous flow in the tie barn;
3. Slatted floor with scraper in the beef area;
4. Scraper in the free stall area, and
5. Flush system from areas 2, 3, and 4 to an inside holding tank.

The continuous flow system consists of four channel one metre deep and one metre wide behind each row of the 22 comfort stalls. The four channels, which are perfectly level, have a 15 centimetre lip at one end to retain water for the manure to float on. The four channels lead into a cross collector channels with a flush system activated by a submersible pump. A second cross channel collects the manure from the beef and replacement area. All manure is stored for approximately three to four days in a holding tank within the building. Every fourth day, the submersible pump

conveys the liquified manure to an outside tank large enough to store all manure for 240 days. Within this 2.4 million litre tank, two Edaphon pumps will process the manure using a micro-aeration system incorporating minute bubbles of air evenly throughout the liquid manure at timed intervals.

During the growing season when plants can use the manure most efficiently, the treated liquid manure will be irrigated as needed. The reasons for using this system are: effective use of nutrients, no soil compaction, low labour, and less odour.

In closing a personal thank you to all the supporters of this exciting project. Macdonald College Farm has moved into the age of high-tech animal research and teaching. Without a doubt, thanks to your support we now have one of the finest research and teaching facilities anywhere.

PROFILE

R. Howard Webster

R. Howard Webster, O.C., B.A.'31, (McGill), financier and philanthropist, is Chairman and President of the Imperial Trust Company, Honorary Chairman of the Globe and Mail, Chairman and Director of the Toronto Blue Jays, and Director of many other companies.

Howard Webster's interest in farming goes back many years to the time when he purchased and developed a farm of 7,500 acres in Prince Edward Island where he has 1,000 head of beef cattle and 500 sheep.

In 1983 while reading the *The McGill News*, he saw an article on Dr. Lewis Lloyd, then Dean of the Faculty of Agriculture, and on the future of the Faculty of Agriculture at Macdonald College which excited his interest in this important faculty at McGill. He drove out to the college, looked around the farm and the various buildings, and immediately realized the need for modern facilities.

When Howard Webster was approached for his support for the McGill Advancement Program, he undertook to provide the seed money to build the new cattle teaching and research facilities at Macdonald College because of his firm belief in the need for cattle research in this province. He met with Dean Roger Buckland, Dr. Bruce Downey, Chairman of Animal Science, and Rudi Dallenbach, Director of the Macdonald College Farm, and reviewed the plans for the facilities. He was invited to unveil the cornerstone on July 18, 1985 and has subsequently followed the construction with great interest. Recently, he toured the entire area with Rudi Dallenbach after the cattle had been moved into the building and the facilities were in full operation.

Howard Webster's interest in Macdonald College, of course, is not new as one of his nieces, Joan Crossen, Dip HEc '56, and two of his nephews, Alan Webster, Dip Agr '55, and Peter Webster, Dip Agr '63, the daughter and sons of his younger brother, Dick, attended Macdonald College.

Following his recent visit to the farm, Mr. Webster said, "I am so pleased to see such

obviously efficient, modern cattle teaching and research facilities available to students, researchers, and the community. I look forward to seeing the expansion and full development of these facilities for the benefit of our young people. I believe in the importance of agriculture just as thoroughly as did Sir William Macdonald."



R. Howard Webster with his niece Susan Webster Riddell, B Com'61, at the cornerstone unveiling ceremonies held on July 18, 1985, at the Farm Centre.

OF WHAT SIGNIFICANCE TO TEACHING AND RESEARCH?

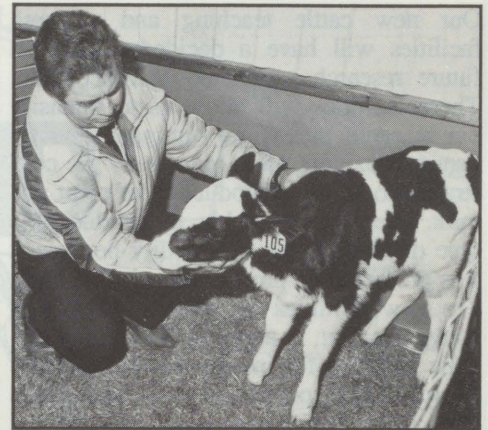
Professor B.R. Downey,
Chairman, Department of Animal Science

As a member of a small Department in a relatively small Faculty of Agriculture, I am regularly made aware of the fact that we are expected, collectively, to be experts in all areas of animal agriculture. To achieve excellence, therefore, in any specialized field is a significant challenge. In an analogous fashion, the design of a cattle raising facility which will effectively accommodate research, teaching (diploma, undergraduate, and graduate) and demonstration, while striving to be economically viable, is almost impossible to achieve. The title of Rudi Dallenbach's accompanying article, "Not Just Another Barn!" is most appropriate. When input on design was sought originally from all potential users of the new facility, consensus did not come easily due to differing priorities and a host of personal biases. Further complicated by economic and other constraints, the final product is a composite which we are confident will reasonably meet most needs.

While the principal mandate, in my opinion, of an institution such as ours is to train agriculturalists, an ability to think and

be innovative can best be learned from training in a fertile research environment. This new facility, along with those of swine and poultry to come, will help to ensure that our ambitious young staff members have the resources necessary to carry out productive research, both fundamental and applied. Resources don't only include physical ones but human as well. With the labour-saving amenities in the new cattle complex, such as reduced manure-handling and a more efficient milking system, a higher percentage of the farm staff's time can be spent passing on knowledge to students and participating in research projects. The latter have been difficult to achieve in the labour-intensive old barns.

Of the 40 graduate students working in the Department of Animal Science at present, 30 per cent are from foreign countries and several are from other provinces in Canada. Many other departments no doubt have similar figures. The cross-fertilization of ideas brought about by the presence of these students is healthy and must be maintained. In fact, our national and international reputa-

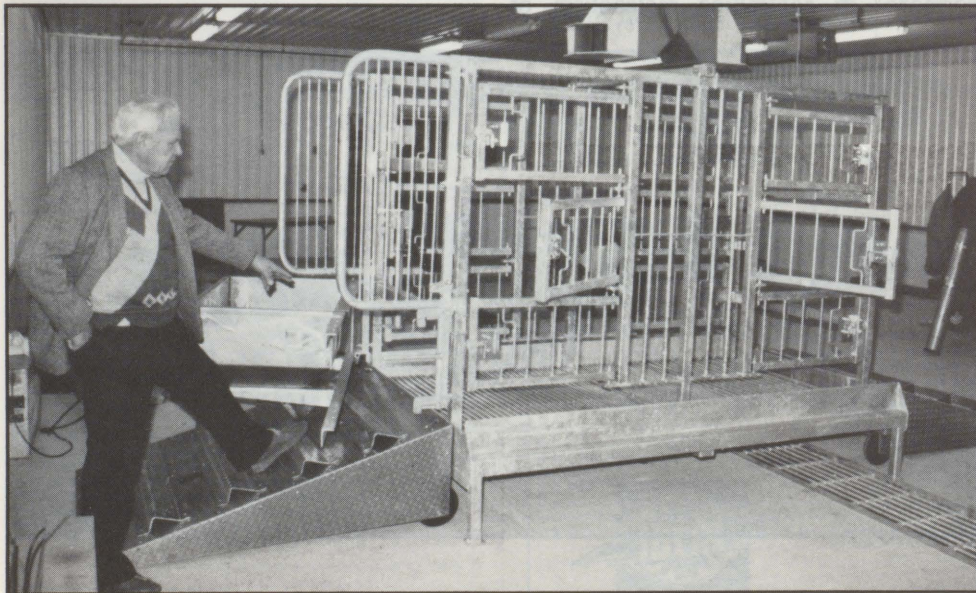


Dr. Downey consults with a young friend in the calf barn.

tion depends on it. Modern facilities, such as the post-graduate laboratory and large animal metabolism area built specifically for research and graduate student training, can only help to keep the quality of our work high and, consequently, ensure continuing applications from high quality graduate student candidates.

Undergraduate and graduate students at Macdonald have always had the privilege and opportunity of acquiring "hands on" experience with animals within a five-minute walk of the campus, a feat not easily achievable in most faculties of agriculture in North America. Now they will still be able to do so, but in modern, clean, bright, and well-ventilated surroundings which should make working a pleasure.

We salute those who have had the interest and foresight to support such a project, and we look forward to Phases 2 and 3 of the farm redevelopment program, after which the pigs and poultry will be first-class citizens as well.



Rudi Dallenbach pointing out features of the metabolism unit. With seven additional such units, intensive metabolic research studies in adult cattle will be possible.

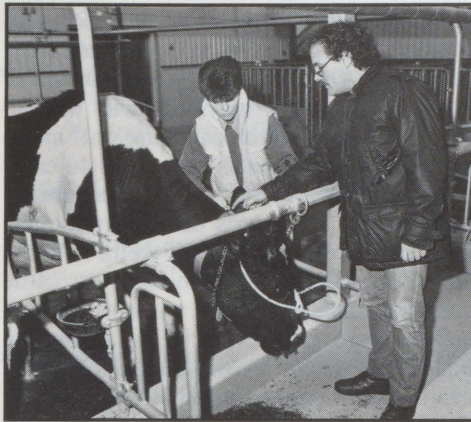
STEPPING UP RESEARCH ON DAIRY AND BEEF CATTLE

by Elliot Block and Leroy E. Phillip
Department of Animal Science

Our new cattle teaching and research facilities will have a decided impact on future research conducted at Macdonald. These facilities will allow us to intensify our research thrust into ruminant metabolism and explore more vigorously the constraints to efficient production of meat and milk. We were not able to conduct this type of work in the old facility because it was principally a production-oriented barn. The new facilities do have a production component but, in addition, there are metabolic facilities for intensive investigations. There are also specialized areas, such as the main dairy, heifer unit, beef unit, calf and maternity areas, and an autopsy-postmortem facility area where animals can be safely handled for biopsies or postmortem examinations.

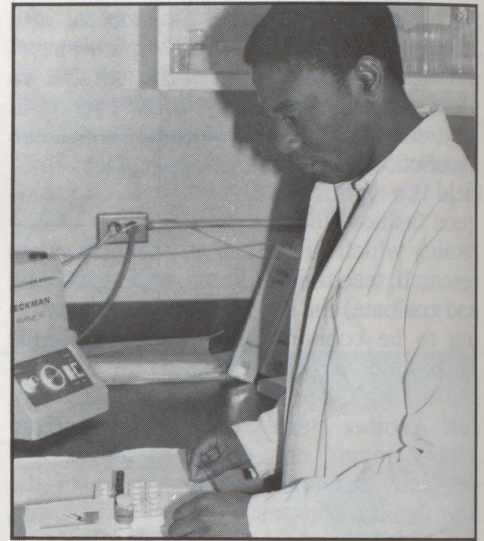
We will continue to conduct production-management-oriented research for beef and dairy cattle. This includes: testing new feed ingredients, feed and silage additives, drugs, and management tools (devices); developing different feeding and/or milking strategies based on new information and investigating effects of feeding and management on reproductive performance. These kinds of trials lead to immediate recommendations for our producers. However, in order to conduct research that will allow us to plan for our future we must conduct more basic research into metabolism and food intake control in cattle. Such research will allow us to predict responses of animals under various situations and will shed more light on complex metabolic problems which are not addressed by production trials. The beef unit, for example, is equipped with electronic facilities for recording feed intake by individual animals. This will substantially increase our ability to conduct more precise research with beef cattle and to address the problem of predicting food intake in ruminants.

There will be a combination of some of the basic research trials that had been initiated in our old facility such as effects of parasite burden on milk production and the role of anions and cations in the control of milk fever. Such trials were conducted with diffi-



Professor Elliot Block and Patti Ward placing the first research cow on trial in the new barn.

culty in our old facility because the type of environmentally controlled conditions necessary for such studies were not easily achieved. In the new facilities we can now conduct these trials with great ease. Some of the more basic oriented trials planned for the new facility include: investigating factors causing cystic ovaries in cows and heifers; the role of somatotropin (growth hormone) in controlling metabolism of



Professor Leroy Phillip in his lab in the Department of Animal Science.



Dairy herd in the main feeding and viewing alley of the dairy barn with research cows in the right foreground. Motorized feed cart is seen towards the back.

cows, heifers and calves; studies of protein homeostasis and silage intake in beef cattle; effect of production level on maintenance requirement of cows; feed protein utilization by ruminants, and the effect of acid-base imbalance in altering production efficiency in beef and dairy cattle.

Trials of this type as a rule take many years to yield practical results. Some trials will yield no direct practical results but will increase our understanding of how animals (including humans) actually "tick." Research of this nature must be done at a university because the private sector is usually more concerned with immediate results.

Our new facilities have equipped us to better address the biological constraints to the efficient production of meat and milk for now and the future.

THE IDEAL CHOICE THE SOLID CHOICE

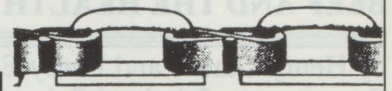
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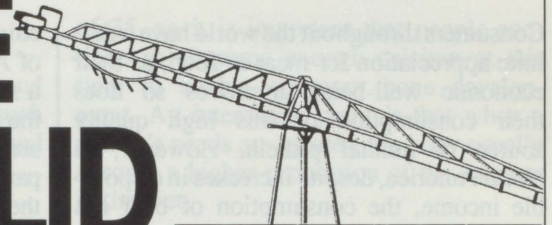
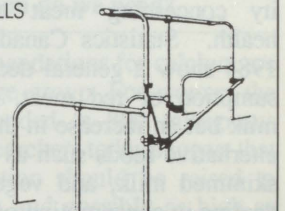
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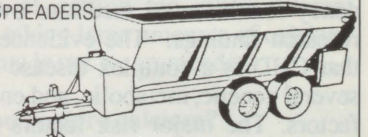
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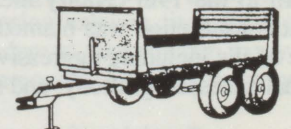
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ISSUES IN HUMAN NUTRITION

BEEF AND THE HEALTH QUESTION

by Henry Garino and Leroy E. Phillip
Department of Animal Science

Consumers throughout the world have a definite appreciation for meat as food; as their economic well-being improves so does their consumption of this high quality source of animal protein. However, in North America, despite increases in disposable income, the consumption of beef has declined as a result of adverse media publicity concerning meat consumption and health. Statistics Canada data for 1963-1984 show a general decrease in the consumption of red meat, eggs, and whole milk but an increase in the consumption of alternative foods such as chicken, partially skimmed milk, and vegetable oils. This decline in consumption of animal products, particularly beef, is due to the consumer's perception that beef contains relatively high levels of cholesterol and saturated fats, which might be responsible for coronary heart disease (CHD).

The issue of cholesterol and CHD has been addressed by scientists because of the tendency for the news media to oversimplify research findings. The evidence suggests that CHD is a complex disease caused by several genetic, metabolic, and environment factors. The major risk factors associated with CHD are related to the North American lifestyle, which is characterized by stress, overweight, tobacco, and alcohol consumption. Dr. R.G. Brown of the University of Massachusetts recently emphasized that to single out meat consumption as a major factor in heart disease is to return to the 19th century mentality when meat consumption was blamed for a multitude of ills including aggressive behaviour, sexual excesses, gluttony, and sterility.

However, as Karen Davidson pointed out in a recent article dealing with consumer misinformation about beef, "for every credibility gap there is a gullibility fill." This statement is very appropriate as we try to understand the shift in consumption from beef to

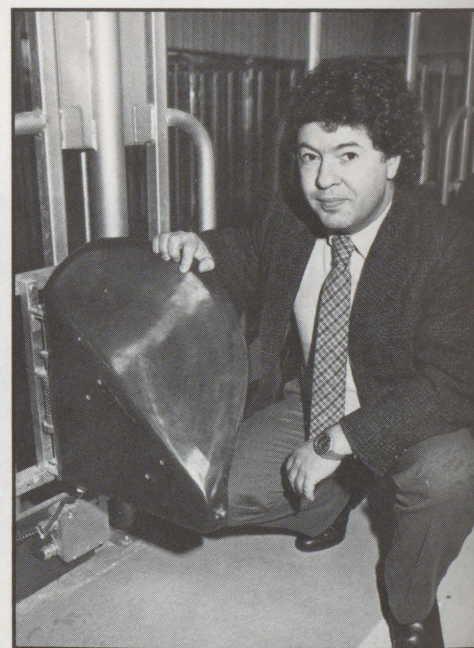
chicken. Lynn Stewart and Linda Robbins of Agriculture Canada also pointed out that a serving of lean meat contains essentially the same amount of calories and fat as a serving of roast chicken; neither meat was particularly high in cholesterol. Clearly then, there is no good reason for this dramatic shift from beef to chicken. What is even more ironic is that the increase in chicken consumption has not been due to "low fat" roasted chicken but to deep-fried products such as "chicken nuggets" which contain (in a serving) twice as many calories and three times as much fat as a serving of lean beef - definitely not a "healthy decision."

If the driving force behind the decrease in beef consumption were price, we have more evidence of "gullibility fill." For instance, Steve Jones, a meat scientist with Agriculture Canada showed that even though the price of chicken breasts was \$8.82/kg and the price of sirloin steak \$11.02/kg, when compared on the basis of edible meat, the "real price" of chicken was \$1.36/100 g eaten, while the price of sirloin was \$1.16/100 g. This price advantage in favour of beef is due to the fact that 95 percent of sirloin is edible, whereas only 65 percent of chicken breasts is edible.

One can only conclude that the consumer is somewhat confused by oversimplified and misleading information about the nutritional value of beef and its significance in

human health. The merits of beef as a nutritious, high quality food meeting the human requirements for several key nutrients have long been established. Recent concerns about inadequate intakes of zinc and iron in the Canadian population indicate the importance of meat consumption for adequate trace mineral nutrition, not to mention the importance of meat in supplying a proper balance of essential amino acids. Yet, here we go again, having to make the case for beef; the negative nutritional image of beef must be changed.

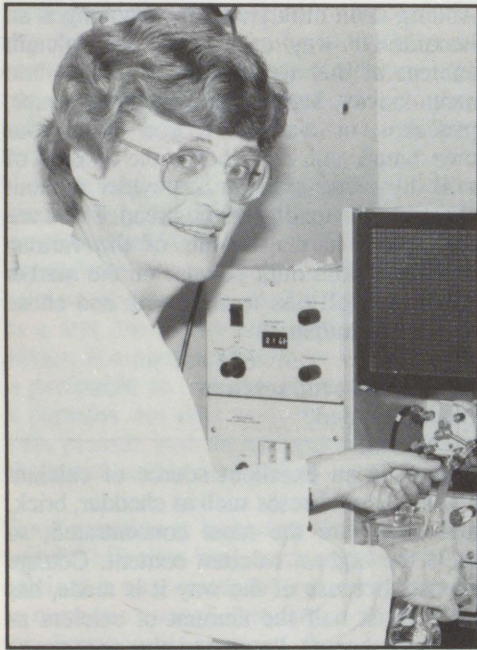
Our challenge, however, as animal scientists is to continue to produce lean beef instead of excessively "fat beef" since it is both economical and nutritionally desirable to do so. Our new cattle facilities will better equip us to meet this challenge and help the beef industry in the years ahead.



Co-author Henry Garino examines a new magnetic Calan gate which will assist greatly in beef nutrition research.

ISSUES IN HUMAN NUTRITION

CALCIUM: Who Needs It?



Marion Zarkadas at work in the Animal Science lab.

(Marion Zarkadas received her BSc in Home Economics from the University of Alberta and did her dietetic internship at the University Hospital in Edmonton. She was a teaching dietitian at the Montreal General Hospital, then came to Macdonald where she taught foods and nutrition for six years. She has taught at the University of Alberta and the University of Ottawa and was a Food Consultant with Agriculture Canada in Ottawa before returning to Macdonald to teach again in the School of Dietetics and Human Nutrition. This year she returned to full time studies towards a Master's degree in human nutrition. She was interviewed recently by Hazel Clarke for the Journal.)

Define the word "calcium."

Calcium is a mineral or an element found primarily in bone and in certain foods such as milk, some vegetables, cereals, and seeds.

Why do we need calcium?

About 99 per cent of the body's calcium is in the bone where it gives strength and rigidity. The other one per cent is involved in other essential functions including muscular contraction, blood coagulation, and proper nerve response. Even though one per cent is a small amount, it is such an important element that the body keeps it very carefully controlled.

Is a lack of calcium associated with certain illnesses?

Yes. A child may suffer from a lack of calcium in the bone as the result of a Vitamin D deficiency since Vitamin D is necessary for calcium absorption and deposition. The same is true for adults. In children the disease is called rickets; in adults it is called osteomalacia. If a person loses large amounts of calcium and protein from the bone, the disease is called osteoporosis. (Osteoporosis will be discussed in more detail in the second part of this interview.)

When are calcium needs greatest?

The body's greatest needs for calcium occur during fast periods of growth. When a baby is developing in the uterus, particularly during the last three months, the needs of the mother are great because she needs adequate amounts both for herself and for the baby. Calcium needs are very high during childhood and again during the teenage years when bone growth is rapid. Bones, however, continue to increase in mass up to the age

of 35, so it is important that people continue to consume enough calcium at this time to enable optimum bone development. An interesting point is that when a person's needs are greater, the body usually absorbs a higher proportion of the calcium in the diet.

How much calcium do we need?

Canadian recommendations for calcium are given for each age group. For women the amount recommended is 800 milligrams daily. Several researchers today suggest that this recommendation should be raised to 1,000 milligrams, and possibly as high as 1,500 milligrams after menopause, but others have said that there is still no evidence that high levels of calcium alone will add to bone mass in adults.

Can we get too much?

If one eats normal foods there is little possibility of getting too much calcium. However, taking large amounts of calcium supplements is not recommended.

Can the body store calcium?

The body stores calcium in the bone. The important thing to remember is that bone is not a static tissue. Calcium is being put in and removed from the bone on a constant basis, and every day people lose calcium from the body through the urine and through the digestive tract. Since we are constantly losing calcium, it is by far the wisest procedure to take calcium every day in adequate amounts to replace these losses.

What foods contain calcium?

In North America the primary dietary source of calcium is milk and milk products. Without milk in some form it is difficult to get adequate amounts of calcium.

Calculate Your Calcium Intake

(✓) CALCIUM-RICH FOODS

___ Canned sardines with bones
___ Macaroni & Cheese (homebaked recipe)

___ Milkshake (restaurant type)
___ Plain yogurt
___ Cheese (cheddar, edam, gouda)

___ Dried skim milk powder
___ Milk (skim, 2%, whole)
___ Milk (buttermilk, chocolate)
___ Fruit flavoured yogurt

___ Cheese (all other hard types)
___ Processed cheese slices
___ Canned salmon with bones
___ Soup made with equal volume milk
___ Pancake/waffle (from mix with milk)

___ Pudding made with milk
___ Cheese pizza
___ Mustard greens, kale (cooked)
___ Tofu (made with calcium - read the label)

___ Beans (kidney, garbanzo, lima, navy, soy)
___ Ice milk, ice cream
___ Chili con carne made with beans
___ Cottage cheese
___ Broccoli (cooked & chopped)

___ Parmesan cheese
___ Orange (whole)
___ Almonds

USUAL
SERVING
SIZE

NO. OF
SERVINGS
YESTERDAY

MILLIGRAMS
OF CALCIUM
PER SERVING

TOTAL MG
OF CALCIUM

7 med 1 cup TOTAL SERVINGS:		X 400	=		mg
10 oz. ¾ cup 1¼" cube TOTAL SERVINGS:		X 350	=		mg
1/3 cup 1 cup 1 cup ¾ cup TOTAL SERVINGS:		X 300	=		mg
1¼" cube 2 slices 3 oz. 1 cup two - 4" TOTAL SERVINGS:		X 250	=		mg
½ cup ½ - 12" ½ cup ½ cup TOTAL SERVINGS:		X 150	=		mg
1 cup ½ cup 1 cup ½ cup ½ cup TOTAL SERVINGS:		X 75	=		mg
1 Tbsp. 1 med. 2 Tbsp. TOTAL SERVINGS:		X 50	=		mg

My Actual Calcium INTAKE

Less my Calcium NEED

The DIFFERENCE

Adding skim milk powder in cooking is an inexpensive way to increase the calcium content of the diet. It can be mixed into meat loaves, hamburgers, creamed soups, pancakes, or muffins. If you make your own bread, you can double the amount of milk by using skim milk powder without changing the quality of the bread. There are differences in the flavour of the various brands of skim milk powder on the market so get a small box to start with and choose the brand you like.

What milk products are recommended?

Cheese is an excellent source of calcium and the hard cheeses such as cheddar, brick, and swiss are the most concentrated, so have the highest calcium content. Cottage cheese, because of the way it is made, has only about half the amount of calcium as the hard cheeses. Processed cheese is not as rich in calcium as is hard cheese either because it has a high proportion of water. But all cheeses are important contributors of calcium.

Yoghurt is also very good. Not only is it made of milk but often it has skim milk powder added so that a cup of natural yoghurt may have slightly more calcium than a cup of milk. Fruit yoghurts are similar to milk in their calcium content. The relatively new yoghurt drink YOP is a fabulous idea!

Other milk containing foods include ice cream and ice milk, and the amount of calcium in them depends on the formulation

Other Sources?

Some green vegetables such as broccoli are regarded as relatively good sources of calcium, but vegetables cannot be counted on as major sources since some green vegetables contain oxalates which combine with calcium and make it unabsorbable.

From the pamphlet "Calcium Calculator," and reprinted courtesy B.C. Dairy Foundation. In Quebec the brochure is available from: Dairy Bureau of Canada, 1981 McGill College, Suite 1330, Montreal, Que. H3A 2X9

In the average Canadian diet about 60 per cent of our calcium comes from milk and milk products. Bread and cereals, some green vegetables, and meat alternatives such as beans and soy products provide the other 40 per cent. People living in countries where milk isn't consumed to the same extent have to depend on other calcium sources. Mexicans soak corn in lye and get much of their calcium that way. In Vietnam a calcium rich soup broth is prepared by soaking bones in vinegar, then boiling and straining them. In other Far Eastern countries there are various ways of preparing fish which include the bones; remember that it is the fish bones that are a good calcium source, not the flesh.

Milk - homogenized, 2%, skim, chocolate, skim milk powder, evaporated -- which is best?

The main difference in the liquid forms of milk is the calorie content, so a person who is counting calories may choose 2% or skim milk rather than homogenized or chocolate milk. The calcium content of these forms of milk is similar, however, and the calcium is well absorbed from all of them.

Two excellent sources of calcium are skim milk powder and evaporated milk. People who don't like to drink a lot of milk, have a small appetite, or wouldn't mind a more concentrated milk can easily increase their calcium intake simply by adding skim milk powder to milk or by using evaporated milk.

NOTABLE EVENTS

A WELCOME VISITOR

Sardines are a very good calcium source if you eat the bones, as are the bones of canned salmon. Raw oysters, dried beans, and almonds are fairly good sources as is tofu, if it is processed with a calcium sulphate.

Calcium supplements are available on the market, but it is still questionable whether supplementary calcium is effective in adding to bone mass in adulthood. Therefore, calcium supplements should be used only as a last resort and only under a doctor's advice. If a person tolerates milk, then milk is preferable to calcium supplements since it contains not only calcium but also lactose, protein, and phosphorus which aid in absorption and bone renewal.

Good nutrition is important throughout life and, for effective long-term results as far as calcium is concerned, the key appears to be to consume enough throughout life so that the bones will grow to their maximum potential and, when age-related calcium losses occur, that these losses will be kept to a minimum by consuming adequate calcium daily.

CALCIUM NEEDS IN MG PER DAY

Age	Females	Males
1 - 3	500	500
4 - 6	600	600
7 - 9	700	700
10 - 12	1000	900
13 - 15	800	1100
16 - 18	700	900
19 - 49	800	800
50+	800	800

Reference: Recommended Nutrient Intakes for Canadians, 1983. Health and Welfare, Canada.

CALCIUM AND OSTEOPOROSIS

Could you briefly discuss osteoporosis?

Osteoporosis is a condition that has been getting a great deal of publicity lately. As people age they lose bone mass.

Not only the calcium but also the protein on to which it is deposited are lost.

As this process continues, the bone that is left is normal but is less dense; therefore, it becomes weakened. This is why older people often break a bone from a simple fall. If they have osteoporosis, they may even get a broken bone from a hug!

One important point that many people do not realize is that bones continue to grow in mass up to about 35 years of age, which is a key factor in the possible prevention or delay of osteoporosis. The greater the bone mass that can be formed, the more calcium there is to draw on throughout the rest of a person's life.

Women have a much higher incidence of osteoporosis than men, and fine-boned white Caucasian women and orientals are the most susceptible. Black people have greater bone mass and seldom develop osteoporosis.

What about the elderly?

Calcium loss from the bones is a normal aging process. Everybody past the age of 35 to 40 starts to lose calcium from the bone, and the elderly are at the end of a long process of calcium loss. It is believed that there are two main reasons why women are more susceptible to osteoporosis than men: they don't have as great a bone mass as males and after menopause, when estrogens are no longer being produced, calcium losses are more rapid.

Detecting osteoporosis is difficult. A person can lose up to 30 or 40 per cent of the bone before it can be detected on an x-ray. Often people who have weak bones have absolutely no symptoms until a bone breaks or a vertebra collapses, and they are into a full blown case of osteoporosis.

The space program has taught us even more about calcium loss from the bones. Researchers found that astronauts coming back from space flights were losing a lot of calcium. They discovered that the pull of gravity affects bone calcium and that weight bearing exercises such as walking and jogging are very effective in helping to maintain calcium in the bones.

Remember that immobility is a killer! Hospital patients are now encouraged to walk as soon as possible after an operation since calcium loss from the bone increases rapidly when a person is immobile.

What research are you doing for your Master's degree?

I will be studying the effects of dietary supplements of sodium chloride (table salt) on the excretion of calcium in healthy men and postmenopausal women.

There have been recent studies that suggest that women, particularly postmenopausal women who are consuming a fair amount of dietary salt, may be more susceptible to osteoporosis, especially if they are on low calcium diets.

What research are others doing?

There is a great deal of research now being done on the cause, treatment, and prevention of osteoporosis. Once the bone has been lost little can be done to replace it. Some researchers have found that weight bearing exercises may strengthen depleted bones to some extent. But for those whose bones are weakened, the main goal is to reduce further losses.

There is research on the use of supplements, and whether in fact they are a good idea. Dr. Heaney, a noted U.S. researcher, has suggested that it is better to buy nutrition from a food store than from a drug store. If it is possible to get adequate calcium from food, a person is probably better off than using supplements, but for those who are unable to take milk or simply cannot consume enough calcium, then the doctor might recommend a dietary supplement.

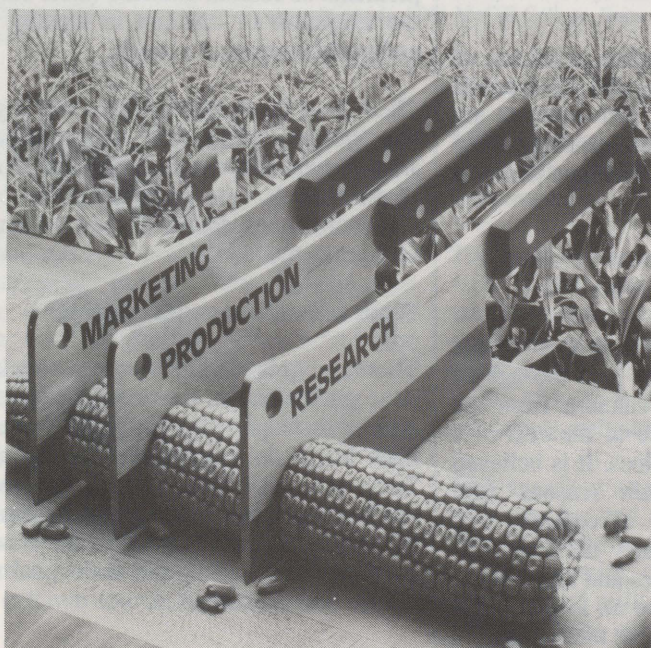
Many studies are underway on the effects of estrogen treatment on calcium and bone to

see whether women should be put on estrogen supplements after menopause to prevent that rapid bone loss. Other studies include the role of Vitamin D and fluoride on calcium absorption and deposition in the bone, the effects of exercise on bone strength, the effects of certain drugs on calcium loss, and many more.

The important thing for everyone to remember is that they need adequate amounts of calcium daily to ensure that the body loses as little as possible, and for bone health they also need exercise.

The ideal solution would be to ensure that people achieve maximum bone mass by age 35 or 40, then keep bone losses to a minimum past 40 so the bones will retain their strength even if they live to 100. We hope that research will find ways to achieve these goals and prevent one of the major problems of getting old - osteoporosis.

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NOTABLE EVENTS

A WELCOME VISITOR

by Robin K. Stewart
Associate Dean Research

As a guest of the Agricultural Undergraduates Society (AUS) of Macdonald College and the Quebec Farmers Association, Michel Pagé, Quebec's Minister of Agriculture, Food, and Fisheries, spent a busy but productive day on the Macdonald campus last November 5th. The Minister visited the Dairy Herd Analysis Service (DHAS) before addressing the annual meeting of the Quebec Farmers Association. He joined the QFA members for lunch and spoke to many of them before meeting with students and staff in the Macdonald-Stewart Building. He answered a wide variety of questions before continuing his tour of Macdonald which included the new cattle teaching and research facilities, the Morgan Arboretum, and the Emile A. Lods Agronomy Research Centre.



Top: Agriculture Minister Michel Pagé receives a wall hanging as a memento of his visit to Macdonald.

Centre: he answers students' questions and, below, he discusses DHAS with Manager Norman Campbell, centre, and Dean Roger Buckland.



Fun Fact Fable Fiction

by Ralph H. Estey

Emeritus Professor
Department of Plant Science

Maritime Inventor

John Patch (1781-1861), an uneducated, poor sailor and fisherman of Yarmouth, Nova Scotia, invented a steam-screw for propelling ships in the early 1830s and, in 1844, he conceived the idea of a double action propeller and successfully demonstrated its advantage in Yarmouth harbour. It was a model and forerunner of what later propelled the Queen Mary and the Queen Elizabeth at record-breaking speeds. Poor Mr. Patch didn't gain a dollar from his inventions and died in the Yarmouth poorhouse.

Virtue Unrewarding

*There was a young lady named Smith
Whose virtue was mostly a myth
She said, "Try as I can
I can't find a man
Who it's fun to be virtuous
with."*

Metric World

Only three trading countries in the world have not converted to the metric system. They are Burma, Brunei, and the United States. In December, 1975, the U.S. Congress passed the Metric Conversion Act promoting a voluntary switch to metric measurement, but consumer resistance has prevented its widespread acceptance in that country.

Has Solar Heat Cooled

What went wrong with the widespread enthusiasm for solar energy? Solar energy was touted as being cheap and renewable, and it was blessed by environmentalists as a clean alternative to conventional fuel. Remember the Purchase and Use of

Solar Heating (PUSH) program that was launched in 1978, with the promise to put a solar collector or two on federal buildings? I wonder if the percentage of new buildings with "built-in" solar collectors has increased or decreased in the past five years?

Games We Played

There was a time when Macdonald College had its own golf course, bowling green, and cricket ground, in addition to a field for playing lacrosse, football, or other ball games. In the winter, students usually made an ice-skating rink on the river.

Garden Magic

All you need to grow fine, vigorous grass is a crack in the pavement leading to your front door.

Frozen Food

Inspired by a trip to Labrador in 1920, where he saw how frozen meat was being used, Clarence Birdseye experimented with methods of quick-freezing fish and vegetables. He founded BIRDSEYE SEAFOODS INC. in 1923 and shortly thereafter GENERAL SEAFOODS. Neither company prospered. In 1929 he sold his patent rights, trademarks, etc. to two companies that merged to become the GENERAL FOODS CORPORATION.

Paid Police

In 1926 the city of Saint John, N.B., employed the first paid police force in North America, thus preceding the famous London "bobbies" by two years.

Fable

The temple of Aphrodite, the ancient Greek goddess of love, in the city of Corinth, is said to have employed more than a thousand sacred prostitutes. Wealthy men dedicated their most beautiful slaves to the "service" of the goddess.

Sweatshirt Dictionary

This two-line definition was seen on a sweatshirt in Gibraltar recently: "Sex is a misdemeanor, the more I miss the meaner I get."

Fact

The first university degree conferred on a woman in Canada was granted to Grace A. Lochart in 1875 by Mount Allison University, Sackville, N.B.

Golden Age Humour

Three golden-agers were discussing the ideal way of dying. One, aged 75, said he'd like to crash in a car going about 200 kph. The second, aged 80, said he preferred a fatal crash in an aeroplane. The third, aged 87, said, "I'd like to be shot by a jealous husband."

Peace on Earth, Goodwill to Men?

Many Christians believe that Mohammed spread his philosophy forcefully, by the sword, whereas Christ taught that His philosophy should be spread by love and that His followers be advocates of peace in the world. Those who believe that will ponder the meaning of Christ's own words, as reported by St. Matthew (10:34): "Think not that I am come to send peace on earth, I came not to send peace, but a sword."

Bare Facts

Historians know that Napoleon's army retreated from Moscow largely because of the bitterly cold weather, but history neglects to mention why the cold was such a problem for the French soldiers. The truth can now be uncovered. Officers and men of Napoleon's army had very good uniforms, with the latest in shining tin buttons. Below 13°C tin, in its pure form, will crumble. Napoleon and his men lost their trousers when their buttons crumbled to dust in the freezing cold of winter in 1812. It's no wonder they retreated.

Jumping Plants

Canadian Jumping Ferns travel by rooting fresh plants at the ends of their fronds.

Up to our Ears

According to the Minister of Finance, the net federal debt in 1967 was \$4000 per Canadian family. In 1987 it will amount to more than \$24,000 per family, and we have to pay interest on every cent of it.

From Cook to President

Ho Chi Minh, who became a great leader and, in 1954, President of North Vietnam, once worked as a pastry cook in the Carlton hotel in London, England.

SEEKING SOLUTIONS

Research Reports

by Robin K. Stewart
Associate Dean Research

As promised last time I thought I would highlight the research being carried out in another department within the faculty. The Department of Entomology is a fairly small department but prides itself in being active in research. I am a member of the department and as we also claim to be highly democratic, I had better present the work of the staff in alphabetical order.

Dr. Gary Dunphy only joined the department in September 1986, but he is already organizing his hi-tech laboratory to continue his work in the area of biotechnology. As with many of the researchers at Macdonald his research has implications for basic science as well as having practical aspects. His work at the molecular and genetic level has already borne fruit in the biological control of insect pests using pathogenic nematodes and bacteria.

Dr. Stewart Hill has a wide range of research interests from the politics of science, through integrated pest management down to the use of diatomaceous earth against household pests. Specific projects include the control of the plum curculio, one of Quebec's major pests of apples, the use of predatory mites for biological control in apple orchards and greenhouses, and the role of soil animals in cropping systems.

Dr. Keith Kevan, Emeritus Professor, "retired" in 1986, but continues as an extremely active researcher in his specialties of the taxonomy of grasshoppers and ethno-entomology. This last term might need a little explanation! As far as I can gather it means the history of the relation between insects and humanity and takes Dr. Kevan from ancient Sanskrit to modern art in his studies.

Dr. David Lewis specializes in biting flies. No he is not some sort of entomophage, but he does conduct research on insects such as mosquitoes, blackflies, and deer flies, which feed by biting animal hosts. One of his applied projects is aimed at

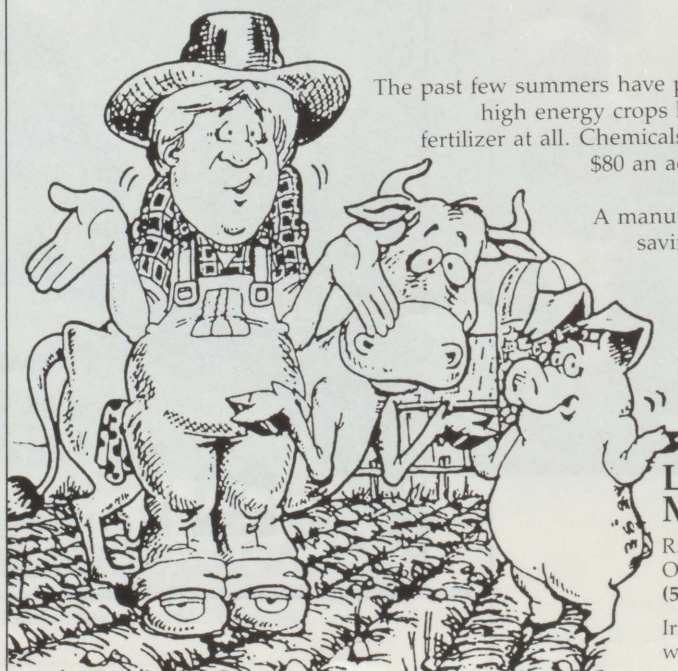
reducing the nuisance of biting flies on dairy cattle by use of ear tags.

Dr. Jack McFarlane, as well as Chairing the Department, conducts research on the physiology of insects. He works mainly on the house cricket, but he also uses cockroaches and mealworms in his investigations. As well as working on aspects of insect nutrition he has recently become very interested in fermentation products as attractants to pest insects such as the cockroach. This, of course, raises the possibility of developing "super baits" for trapping and controlling these pests.

Dr. Michael Sanborne is another newcomer in that he joined us in September 1986 as a taxonomist and curator. Right now he is embroiled in plans to relocate the Lyman

Museum on campus, a daunting task, while also continuing his research on parasitic wasps. Although the work of taxonomists has great importance to entomologists in general, the taxonomy of these types of wasps is of particular interest to people, like myself, who are interested in biological control. This leads me to my own activities, which include biological control of insect pests of orchards and vegetable crops. With my students, I have worked over the years on a number of pest species with the objective of applying ecological knowledge to crop protection. Currently we are concentrating on integrated pest management in apple orchards and vegetable crops as well as investigating basic aspects of host/parasite interactions. Specific pests we are studying include plant bugs and the carrot weevil.

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Dr. Vernon (Vic) Vickery, Curator Emeritus for the Lyman Museum, "retired" last year also, but like Dr. Kevan he continues his work on the taxonomy of grasshoppers. In addition he is working at outdoor wintering of honey bees, which he is convinced will save the province a half million dollars a year for importation of bees. He is also currently working on a practical book on bees for professional and hobby beekeepers.

Finally we have Dr. Bill Yule, who concentrates on the biology and control of soil dwelling stages of insect pests of agricultural crops. Currently his research has much less emphasis on chemical control methods and he has increased studies on potential biological controls such as fungi and nematodes for use against white grubs and corn rootworm.

Here ends a very sketchy overview of research activities in the department, but I'm sure any of the staff would welcome enquiries for more details on their work.

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SEEKING SOLUTIONS

Macdonald student a recipient of Canadian Pacific Fellowship

Ms Caroline Constabel, a graduate student in the Department of Plant Science has been awarded a Canadian Pacific Fellowship valued at \$11,000 per year. The purpose of these fellowships is to support research in plant biotechnology. Ms Constabel is a graduate in crop science from the University of Saskatchewan. She took two semesters of her undergraduate degree at Macdonald College as a visiting student.

She started an MSc program in September of 1986 under the supervision of Dr. Bruce Coulman. The goal of her research is to select lines of red clover with improved yield and disease resistance. To accomplish this, selection will be made among "somaclones" of red clover. To produce somaclones, plant tissue is cultured in petri dishes containing nutrient medium. A mass of cells or "callus" is produced in the

dishes, and for unknown reasons, these cells have a high frequency of genetic changes or mutations. Each cell can potentially be regenerated into a mature plant which will possess the genetic changes. These plants or somaclones can then be screened for the presence of desirable mutations. It is hoped that some of these plants will show resistance to root rot, one of the most serious diseases of red clover.



Mac student awarded during a ceremony at the Chateau Champlain in Montreal on October 31, 1986.

At the ceremony, 1 to r, Dr. Bruce Coulman (Plant Science), Dr. Boya Volesky (Chemical Engineering), Ms Caroline Constabel (1986 CP Scholar), Mr. Lawrence Wolfram (1986 CP Scholar), Mr. Stuart Eagles (VP-Corporate, Canadian Pacific Ltd.), Mr. William Stinson (President, Canadian Pacific Ltd.), Dr. Desh Verma (Biology), Ms Suzanne Guénette (1985 CP Scholar), Ms Hélène Gadoury (1985 CP Scholar), Dr. Alan Watson (Plant Science).

CAMPUS LIFE

LEEK LASAGNA: A Prize-Winner

by Hazel M. Clarke

Neither a borrower nor a lender be, may have been Polonius's sage advice to his son Laertes, but because second-year Dietetics student Suzana Vidanovic had not been to the bank she had to borrow money for stamps so that she could mail a recipe into a pasta contest. That was one of the best things she ever did. Early in November, her recipe for Leek Lasagna won first prize over four other finalists. The prize - \$1,000, more than enough to pay back the money for the postage stamps!

For the second year in a row the Canadian Pasta Manufacturers Association have staged a pasta recipe contest for Quebec Dietetics and Nutrition students. The purpose of the contest is to show that healthful, nutritionally balanced dishes can be made with pasta. Dietetics students from the University of Montreal, Laval University, and Macdonald College are eligible to enter.

"When I heard about the contest I spent two weekends at home trying out about five different recipes," said Suzana who comes from Brossard on the South Shore. As she is originally from Zemun in Yugoslavia, some of her recipes were influenced by her European background. "I tried making a souffle with elbows, eggs, and yoghurt. It baked up high, but I didn't like the taste. I did a casserole with Yugoslavian sausages, elbows, and onions, all layered, and I tried making a salad using elbows, egg whites and yolks, and mayonnaise, but I found that too rich."

Suzana said that as she likes leeks and they were fresh at the time, she finally decided to put them together with pasta and make a Leek Lasagna. I could imagine the taste of leeks with a cheese and egg combination. I made a mistake the first time I made it by adding the paprika after I baked the dish. The next time I put the paprika on before baking so that when it baked it was in the mixture on top and it got a nice golden red-dish colour."

The five finalists - one recipe had two creators - met at the Montreal Amateur Athletics Association Building (MAAA) at 2

p.m. for the bake-off. "We first had a rehearsal in the room where the presentations would be made and then went to the kitchen to make our dishes. We had two hours to do two dishes - one for presentation and a small one for tasting."

Other than the Leek Lasagna, the entries included a cannelloni and vegetable casserole, calves' liver combined with vegetables and noodles, a dish of lentils, kasha, tomatoes, and manicotti, and a combination of shrimp, spinach sauce, and linguini.

There were three judges: Louise Desaulniers, President of the Corporation of Dietitians of Quebec, Francoise Kayler, Food Editor for *La Presse*, and Danielle Medina, from le Centre Medina. "The judges spent quite some time with each dish," Suzana told me, "and mine was the last one to be judged." Points were awarded for taste, nutritional quality, originality,

appearance, the description of the recipe, the ease of making the recipe, and for its name.

"When the winners were finally announced as there was another girl with the same first name, I thought she had won, Suzana said, "It was only when I heard the last part of my name that I knew I was the winner. They had already given me \$100 for expenses and now there were flowers and a cheque for \$1,000!"

Why did she think her recipe for Leek Lasagna was the winner? "I honestly didn't think it was good enough to win because it was so simple. When I was making it, I was finished first. Everyone's dish looked so good, but I may have won because my recipe had more taste; the others were bland. My father didn't like my recipe when he tried it at home, but he agreed that it was the best one at the MAAA. The judges



Suzana Vidanovic, centre, receiving congratulations, flowers, and a cheque for a prize-winning recipe for Leek Lasagna from Pierre Juneau, General Manager, Primo Foods Ltd., and Françoise Emard, Manager, Consumer Services, Catelli, Inc. who were representing the Canadian Pasta Manufacturers Association.

REUNION '86

PROFILE: James Wilding, New President

said it was the best tasting and the lightest tasting.

"A couple of the judges said they would have preferred it if I had used a milk based sauce and had started from scratch. I felt I didn't need a milk based sauce because I had enough calcium and I didn't want to add more calories, or make it too rich-tasting. I could have used skim milk powder, but I didn't see the need. Using Knorr's was adding to the flavour, and I didn't add any salt or spices except for paprika. I also mention in my recipe that anything can be used instead of leeks. The recipe can be easily doubled and more cottage cheese could be added. "I made a speech after I had won, but I'm not quite sure what I said. I certainly meant to say that I am grateful that the Pasta Association has this contest and I hope more Macdonald people will enter next year. I also hope that there will be more companies having contests to allow us to show our talents and to show that dishes can be light and nutritious. I certainly intend to enter and to encourage others to do so as well. There were other people from Macdonald at the bake-off and everyone was pleased. "I didn't think I had won," Suzana said, "I felt Macdonald won!"

LEEK LASAGNA

9 lasagna noodles
2 fresh leeks
1/2 cup Knorr's cream of leek soup mix
(125 mL)
3 large eggs
1/2 cup 2% cottage cheese (125 mL)
3 tablespoons grated
parmesan cheese (45 mL)
2 teaspoons paprika (10 mL)

Preheat oven to 350 ° F. (180 ° C)

Cook lasagna noodles according to package directions. Wash leeks carefully and slice thinly in rounds. Saute leeks in a lightly oiled non stick frying pan until they become transparent.

Mix the cream of leek soup according to package directions. Beat eggs just until foamy and blend with cottage cheese until smooth.

Using a 9 by 13-inch (3.5 L) lasagna pan, place 3 lasagna noodles lengthwise, then cover with 1/3 of the soup, 1/3 of the leeks, and 1/3 of the egg-cheese mixture. Repeat layers 2 more times.

Sprinkle parmesan cheese and paprika over top.

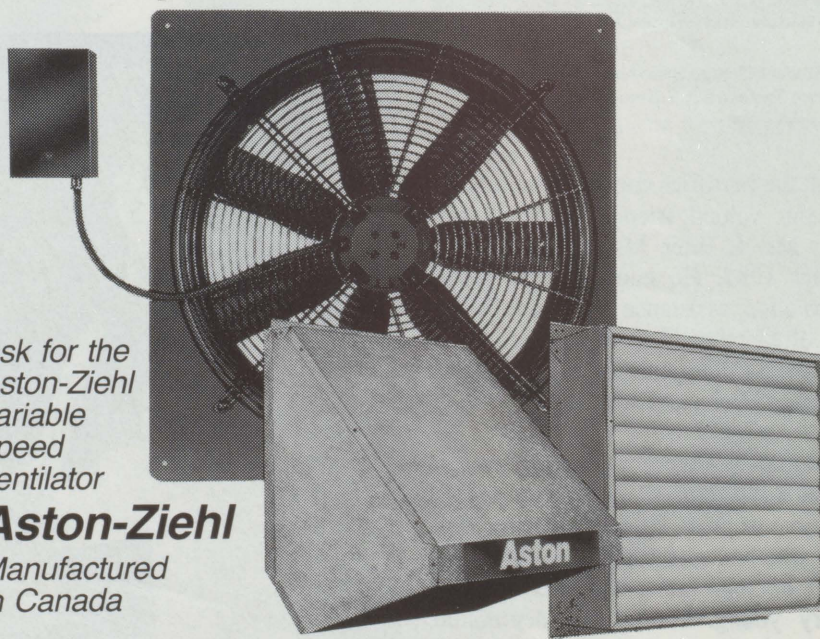
Bake in preheated oven for 15 minutes or until surface is lightly browned.

Serve hot.

Makes six servings.

Note: Any cream soup and any vegetable in season may be substituted. Consider mushroom lasagna or zucchini lasagna or mushroom and zucchini lasagna. Or, as one dietitian noted, the lasagna could be varied by using broccoli and a cream of broccoli soup as a sauce, or asparagus or chicken could be used.

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CAMPUS LIFE

SCHOLASTIC AWARDS BANQUET

Each year in November close to 175 scholarships, bursaries, prizes, and other awards are presented to students of Macdonald College. At this year's annual Scholastic Awards Banquet, Dr. Roger Buckland, Dean of the Faculty of Agriculture said, "This occasion is a unique opportunity in the life of Macdonald College to say thank you to the many friends who support so many of our needs and who support academic excellence."



Diploma Student George Sabo receives the Jardine Bursary from Professor R.S. Broughton.

Although the bursaries continue, we missed one of our valued friends at this year's banquet: Mr. J. Blair M. Jardine died in November 1985. He and his wife Doris have provided assistance to a significant number of Macdonald students since 1970 through the Jardine Bursary Fund and the Colonization Societies Bursaries.

Blair Jardine was a vibrant, energetic person who took a real interest in helping people in their time of need. He had empathy with students who had suffered the loss of a parent, since his own father had died when he was very young. During the depression years he worked as a salesman for "Snap-on Tools," and eventually he became Sales Manager for Canada for that company.

Blair and Doris Jardine have also helped people overseas as well as in Canada. Through the Jardine Bursaries, they have provided assistance to Canadian and overseas students. We are pleased to know that that assistance will continue through the Jardine Bursary Fund which has been established by Doris Jardine and her daughters as a memorial to Blair Jardine.

New Award

Charlotte Dodds Covell, a final-year student majoring in Dietetics was the recipient of a new award established last year, the Murari L. Moudgill Memorial Award, which was presented by Mrs. Sunita Prasher. This award is given each year to the student in the Dietetics major who obtains the highest grades in the two-course sequence Diet Therapy I and Diet Therapy II. This memorial award is presented in memory of Mr. Moudgill by his daughters Mrs. Sunita Prasher and Mrs. Shakuntala Sherma who



Yuet (Erin) Tjam receiving the Jardine Bursary from Linda Jacobs Currie of the School of Dietetics and Human Nutrition.

are extremely interested in nutrition and health.

To our donors, old and new, Vice-Principal Paul Davenport summed it up with these words: "Government support helps to make us good; private support helps to make us excellent!"



Charlotte Dodds Covell was pleased to receive the Murari L. Moudgill Memorial Award From Mrs. Sunita Prasher.

REUNION '86

PROFILE: James Wilding, New President

by Nancy McHarg

The new President of the Macdonald Branch of the McGill Society, James (Jim) Wilding, fondly recalls his college days, and he boasts that not one of the marriages among his class chums has ended in separation or divorce! He attributes this success to the camaraderie that prevailed among the students living in residence, as just about all did, in his Class of '54. "You had four good years to get to know your future wife," Jim Wilding pointed out.

Jim cites raising of funds from the alumni and reunion organization as his principal concerns. He feels that because fewer students now live in residence there possibly is a less cohesive milieu and hence fewer close ties to the college after graduation. "We must educate the student body as to what the alumni does for the school," he said.

Jim and his wife Barbara, also a graduate, BSc (HEC '54), keep in touch with a number of Mac grads. Among them are Bill Hall, who is now the VP of Abitibi Price, Roy Parks, who is President of Nitrochem Canada, John Pickering, who is with Tempo Building Supplies in Burnaby, B.C., and Murray McEwen, who is President of Redpath Sugars.

Another grad with whom the Wildings have maintained close ties is Grant Ross, now the Branch's Past President. Grant called on Jim to take the same position he had held for two years during the 60s. "I felt it was time to help out again" Jim said, and added, "I couldn't very well say no to one of my best clients!"

Jim Wilding came to Canada from England in 1950. While in the army, he had seen an advertisement for Macdonald College. He found out that CP Steamships would give free passage to Canada to anyone applying who would work on a farm, as Macdonald College required six month's farm experience. Jim came and was placed by CP on a

farm in Stanbridge East. "I made \$35 a week and my diet consisted largely of salt pork and eggs," Jim recalled.

Coming back to the present, Jim and two partners own an insurance brokerage firm. He is the former President of the Montreal Executive Association, and a member and former President of the Montreal Amateur Athletics Association. He has been involved in a number of fund-raising events at Macdonald, including the Dean Brittain portrait fund.

With his wife Barbara, he shares a passion for show-rose growing. His favourite is the floribunda which is a cluster of roses. Barbara likes the single bud, hybrid tea

rose. Their roses won first prize in the Canadian Rose Show at Les Florales Internationales de Montreal in 1980. He and Barbara have two children, Jeffrey and Susan.

Sitting relaxed in his swivel chair in his office that overlooks downtown Montreal, Jim Wilding appears to be a man content with his life and pleased to be helping his fellow grads.

Editors Note: Nancy McHarg, a Journalism student at Concordia University, is the daughter of the Branch's extremely active Director and Reunion '86 chairman, Jean McHarg. Thanks for your interest in the Journal, Nancy.



Incoming President James Wilding, left, presents D. Grant Ross with a gift in appreciation of his two-year term of office as President.

MAC INTERNATIONAL

CEMARP in PHAROAHLAND

by Professor Norman C. Lawson, McGill Co-ordinator
CIDA-EGYPT-McGILL Agricultural Response Program (CEMARP)

When I mention to people that I am working full-time on a CIDA (Canadian International Development Agency) program in Egypt many reply that they had no idea that there were agricultural problems in that country. Farming in Africa has been in the headlines for many years and only the worst cases of starvation receive publicity. Egypt is in the remarkable position of having been a net food exporter about 30 years ago. However, the rapid growth in population has outpaced the steady increase in food production to such an extent that over 60 per cent of the food requirements must be imported. All this has happened in a relatively short period of time and clearly demonstrates the dangerous hazards in unrestricted population growth.

Demographics

The current population of Egypt is estimated to be about 50 million, making Egypt the second most populated country in Africa and the largest country in the Arab world. The population has quadrupled in this century and the forecast is for 70 million before the end of this century with an estimated one million additional mouths to feed every 10 MONTHS. Today more than 50 per cent of the Egyptian population is under 20 years of age. Now these are rather dull figures to appreciate but the problem becomes sharper when we consider the geography of the country.

Geography

The total area of 1,001,449 square kilometers indicates that Egypt is smaller than Ontario or slightly larger than British Columbia. Approximately 99 per cent of the population is densely crowded into an elongated ribbon which is the long oasis created by following the course of the Nile River. This intensively cultivated area amounts to a mere 38,850 square kilometres or about four per cent of the total land area. The other 96 per cent of the

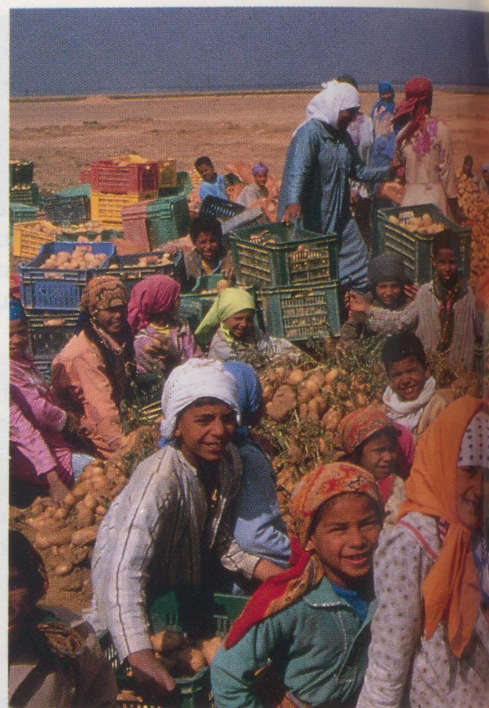
land area consists of desert with occasional oases and peopled by Nomadic Bedouin. The 5.8 million feddans (acres) dedicated to agriculture is almost exactly the same area as the tillable farmland of Quebec. The Nile River enters Egypt in the south from the Sudan and stretches northward for over 1500 kilometres forming a large Delta and then emptying into the Mediterranean Sea. The river is at its lowest height in May, rises in July, and overflows its banks in September. In the past the flooding of the Nile meant a rich annual silt deposition over the valley.

History

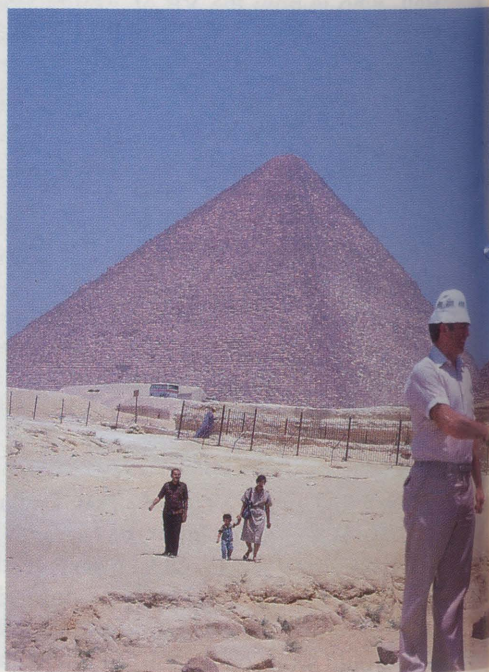
The rich alluvial soils of the Nile Valley and Delta together with favourable temperatures have combined to create Egypt's most valuable resource. The ability to produce food and cash crops was a very important factor in history. The early prehistoric culture of 5000 B.C. makes Egypt the oldest nation-state in the world. Over the centuries there have been many periods of foreign domination and intervention by Greeks, Persians, Romans, Byzantines, the Ottoman Empire, the French and the British. Most recently a Republic was set up in 1952 with the overthrow of King Farouk. From 1954-70 Gamal Abd-al Nasir (Nasser) ruled Egypt. He was succeeded in 1970 by his Vice-President, Anwar al Sadat who ruled until his assassination in 1981. Since 1981, President Husni Mubarak has had the task of transforming Egypt from a feudal state to a modern republic.

International Assistance

A number of countries have programs of assistance to Egypt. The United States, Europe, Japan, Australia, and Canada all have programs under way. The Canadian effort so far has been important in the provision of locomotives for the railways and electrical transmission lines to assist in rural electrification of the larger villages.



Potato harvesting and hand sorting



Dr. Downey and the Great Pyramid of Cheops.



Direct assistance to agriculture has only recently been undertaken with the CIDA-Egypt-McGill Agricultural Response Program (CEMARP) as a most important factor in this endeavour.

Agricultural Development

Egypt has a Ministry of Agriculture and Food Security with a highly centralized bureaucracy and a capacity to get things done. This ministry has a staff that is highly educated, a Cairo complex of institutes, and a network of stations and farms throughout the governorates in the cultivated area. The infrastructure to carry out agricultural development is in position and it has an excellent record of improving food production in recent years. The problem is that agricultural technology in the last 30 years has developed at an astounding rate in the industrialized part of the world. Within Canada the rapid change has been breathtaking and, as is well known, the changes have required capital for equipment and continuing modern training for manpower. Egypt has been unable to keep up with this rapid modernization, and a number of bottlenecks have developed. The Canadian International Development Agency (CIDA) have awarded a contract to McGill University to assist in the opening of some of the bottlenecks.

CEMARP

An agreement was drawn up between McGill University and CIDA in February 1986. A few days later Drs. Norman Lawson and Mohamed Faris were in Egypt assessing the situation. Dr. Faris and family moved to Cairo in May 1986 with the objective of setting up our Field Office. At the same time Dr. Lawson was setting up a Head Office in the Centennial Centre at Macdonald College. Dr. Faris rapidly established an office by renting space. He then started to work very closely with officials of the Ministry of Agriculture. An



Drs. Lawson and Faris in a field of lentils.

Executive Selection Committee was set up with three very senior Egyptian agricultural officials plus Dr. Faris. This committee has the job of assessing the various requests and suggestions that emanate from the field. These requests are then sharply focused as projects. The next step at Field and Head Office is to consider the likelihood of being able to provide the services and goods explicitly defined for the project. The next step is to obtain approval from CIDA in Hull. In August 1986 the first nine projects were approved by CIDA. In October 1986 three more were added.

Livestock Improvement

When the team (Drs. Faris, Lawson and Ms. Cochran from CIDA) visited Egypt in February-March they quickly noted that there was little evidence of recent technology improvements in Animal Science. Dr. Bruce Downey was enlisted to advise in this area and projects were rapidly prepared. In September, two Egyptian Animal Scientists arrived to be followed by five more in October. They all attended high level courses organized by Mr. Bob Lang, Director of the International Livestock Management School at Kemptville, Ontario. Training was directed towards embryo trans-

Continued on page 39

REUNION '86

ACHES in Action

Those of you attending last fall's Grad Reunion were no doubt pleased to see the juice, coffee and doughnuts that awaited you after you had registered and the crudites and dips and other snacks served at the Dean's Reception in the afternoon. What you might not have known is that this hospitality was done as part of a fund-raising activity by several members of the Macdonald branch of the Association of Canadian Home Economics Students (ACHES). ACHES was formed in 1965 with the first conference being held here at Macdonald. Macdonald again played host in 1984. All university students who are in a foods, home economics, or dietetics program are automatically members of ACHES, the student branch of the Canadian Home Economics Association (CHEA). The spark behind this year's group comes, in part, from Betsy Wells, president, and Karen Lyn Mudie, senior delegate, and so far this year they are pleased with their members' participation. "We want to develop our professional skills through seminars, tours, and the exchange of ideas," Karen explained, "but like the other clubs we are also geared to participate in the Mac community and to do our share to enrich school life."

Fund raising activities includes selling the "best sponges on campus," said Betsy Wells. "Last year we sold sweat shirts, and this year Karen has designed a new T-shirt that is selling well." The highlight of the year for some members of ACHES is a conference that is held in a different university each year. "We go to seminars, to lectures, and we gather information that we can bring back to the members," Betsy said. Ryerson was on the agenda for this January.



Some of the members of the ACHES hospitality team with Jean McHarg, Chairman of Reunion '86 1 to r, Annie Bédard, Anne-Marie Stephaneson Betsy Wells, Karen Lyn Mudie, Jean McHarg, and Nora Macdonald-Plourde.

GOLD KEY AWARDS 1986

Six Macdonald College students received Gold Key awards in 1986 in recognition of their involvement in campus community activities. The awards, which are sponsored by the Macdonald Branch of the Graduates'

Society, were presented to the students by Dean Buckland at the Reunion '86 Luncheon. All the recipients were worthy students actively involved in many extra curricular activities on campus who have given generously and freely of their time.

Listed below are the six recipients and the principle areas of their contributions:

ANNUAL GENERAL MEETING

Reunion '86 Chairman, Jean McHarg held a small cocktail reception in the Stewart Hall Dining room for honour year Chairmen, in recognition of their splendid work over the past year.

Following the reception, the Macdonald Branch Annual General Meeting, which attracted more than 60 graduates, spouses, and friends was convened at 12:30 p.m. by Honorary Secretary Katherine MacLean.

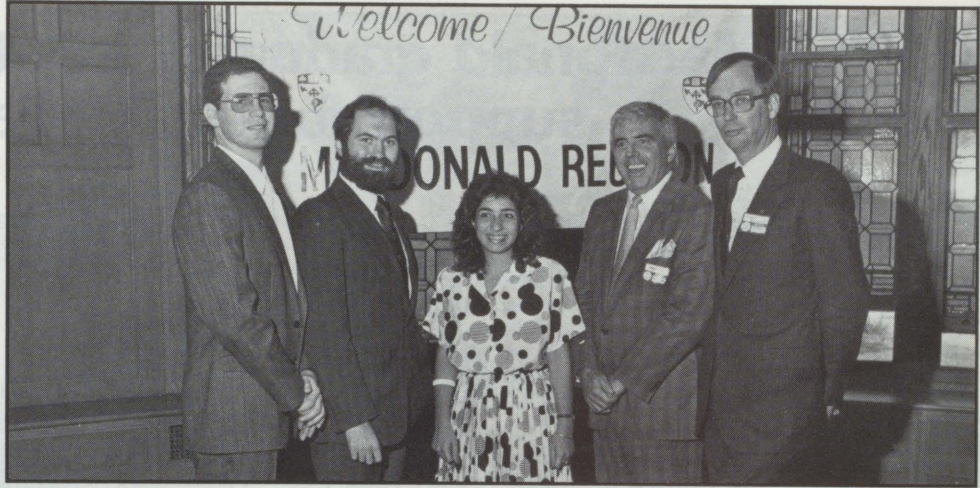
Student	Degree and Major	Extra Curricular Activities and Positions
Dale Burns	B.Sc. (Agr) '86 Agricultural Science	-President of the Livestock Club -Coordinator of inter collegiate judging competition
Anne Delmas	B.Sc. (F.Sc.) '86 Food Science	-Internal Vice President 85-86 Students' Council -President, Laird Hall Residence Committee 84-85
Peter Enright	B.Sc. (Agr) '86 Agricultural Eng.	-Vice President, Business Operations Students' Council 85-86 -Member, Centennial Centre Committee 84-85
Remi Gauthier	B.Sc. (Agr) '83 M.Sc. II Wildlife Resources	-Students' Council representative on McGill Senate 85-86 Macdonald College Space Allocation Committee 85-86 -Post Graduate Students' representative Student Council 84-85
Chantal Saad	B.Sc. (F.Sc.) '86 Food Science	-Vice-President International Students' Association 85-86 Vice President Junior Food Service Executives Association 84-85
Marc Vezina	B.Sc. (Agr) '86 Economics	-President Students' Council 84-85, 85-86

BEYOND THESE GATES

PROFILE: The Class of '56's Bill Ritchie

Reports were made by the Branch executive after which the outgoing President D. Grant Ross listed some of the main achievements of the Branch during his two-year term in office. James Wilding succeeded him as the President for 1986-87, to be assisted by Robert Gales as Vice-President. Warm thanks were extended to Grant Ross for his work and leadership by his successor (and echoed by Dean Roger Buckland), and he was presented with a pewter tankard in appreciation.

The slate of officers and directors for 1986-87 (listed at right), submitted by nominating Chairman, Peter Knox, was read out and additional nominations invited. The new President James Wilding gave thanks to retiring directors Dr. Hans Hueckel, Gaye Mullins, and Pierre David for their contributions to the college.



Three of the 1986 Gold Key Award recipients, l to r, Peter Enright, Remi Gauthier, and Chantal Saad, with Grant Ross and Dr. Roger Buckland.



D. Grant Ross and Ann Anderson, Co-chairmen of Agr. & HEc. '56, assemble colleagues for a class photo

MACDONALD BRANCH OFFICERS AND DIRECTORS 1986-87

Past President: D. Grant Ross, B.Sc. (Agr) '56
 President: James Wilding, B.Sc. (Agr) '54
 Vice-President: Robert L. Gales, B.Sc. (Agr) '68
 Treasurer: Micheline Lambert, B.Sc. (Agr) '81, MSc, (Agr) '86
 Secretary: Katherine MacLean, B.Sc. (Agr) '81
 Faculty Rep: Marcel Couture, Dip (Agr) '65, B.Sc. (Agr) '72

Directors

Harold Blenkhorn, B.Sc. (Agr) '50
 Richard Caron, B.Sc. (Agr) '83
 George Eades, B.Sc. (Agr) '74
 Peter Knox, B.Sc. (Agr) '74
 Jean McHarg, B.Sc. (H.Ec.) '60
 Douglas Pashleigh, B.Sc. (Agr) '52
 Teresa Rivera, B.Sc. (F.Sc.) '77
 John Standish, Dip (Agr) '56

Chairman, Nominating Committee:

Peter Knox, B.Sc. (Agr) '74



Macdonald College

Alma Mater

Fund

"Macdonald graduates key to renewed support for the College"

Fund Chairman Seeks Wider Participation

At a recent committee meeting, Douglas Pashleigh, BSc (Agr) '52, Chairman of the Macdonald Alma Mater Fund, announced that the most pressing concern is to seek wider participation from Macdonald graduates in support of the College. "We are delighted with the increased levels of giving from our traditional graduate donors. However, we must increase the base of support and reach a majority of alumni if we are to expect long-term assistance to the college."

A brief summary of the response to the annual appeal for funds by Mac grads since 1980 highlights Pashleigh's comments. The average gift has doubled but the actual number of donors has only increased by 10% over the same time period. The enthusiasm of the committee is going to focus on several projects to gain much needed annual encouragement for many areas of the campus.

Reunion Class Gifts Increase

"One sure way of getting an honour class interested," explains Vice-Principal Roger Buckland, "is to get them to decide on a project they want to see happen at Macdonald." From a maple grove to a painting, a student program or even a new laboratory, Roger Buckland can find a project which deserves funding and which suits a particular class. As Douglas Waterston, BSc (Agr) '45, points out, "Our class came through with \$10,000 to 'adopt a lab' in The School of Dietetics and Human Nutrition, and help purchase much needed new equipment."

A decade of reduced dollar value of government grants due to inflation has eroded the resources needed to meet special teaching and research projects. Class projects not only inspire a spirited response but guarantee a wider participation from classmates and colleagues. Such reunion class gifts can be a rewarding recognition for the class and provide important funds over and above the regular operating budget.



Library Resources Increased by Annual Giving - Head Librarian Janet Finlayson, holding book, discusses literature search with (left to right) students Linda Mendes, Aubert Michaud and Professor Guy Mehuy.

Phonathon

It is easier to explain the significance of graduate support to the college when one graduate can speak to another graduate personally. However, if you cannot meet them, you can certainly try to reach them by telephone, and this is exactly what the Macdonald AMF committee is planning for this spring.

"Many graduates believe that their modest gift isn't important to the college," says Pashleigh, "But when you add hundreds of modest gifts together they produce major commitments to quality education at Macdonald."

It is new donors and new dollars that Pashleigh and local Mac grads will be asking for when they get on the telephone this April. Please help them to meet their goal of \$75,000 in annual funds for 1986-87.

MACDONALD AMF Donors and Dollars

	# in Fac.	# of Donors	\$ Amount	% of Participation	Avg. \$
1985-86					
Agr. & Food Sc.	4,295	878	58,264	20.4	66
Mac. Others	1,084	122	5,707	11.2	43
1984-85					
	4,159	845	50,965	20.3	60
	956	118	5,061	12.3	42
1983-84					
	4,016	858	46,971	21.3	54
	919	119	4,605	12.9	38
1982-83					
	3,850	829	47,930	21.5	57
	1,190	212	7,932	17.8	37
1981-82					
	3,739	723	39,695	19.3	54
	875	104	3,588	11.8	34
1980-81					
	3,563	789	35,828	22.1	45
	844	105	4,295	12.4	40

Macdonald Alma Mater Fund Committee 1986-87

CHAIRMAN

Douglas Pashleigh BSc (Agr) '52

PAST CHAIRMAN

James Wilding BSc (Agr) '54

COMMITTEE

Arthur Abbey BSc (Agr) '52
Dr. Suzelle Barrington BSc (Agr) '73
PhD '85
Richard Baxter BSc (Agr) '74
Dr. Garth Coffin BSc (Agr) '62
Robert Gales BSc (Agr) '68
Remi Gauthier BSc (Agr) '84
MSc (Agr) '86
Dr. Chandra Madramootoo
BSc (Agr) '77
PhD '85
David Shutler BSc (Agr) '84
Martin Silverstone BSc (Agr) '77
Irving Slack BSc (Agr) '48
Anne Sparkes BSc (HEC) '59
Jane Thomson BSc (FSc) '73
Tom Thompson Dip '58
Director, Annual Giving
Greg Weil,
Development officer
EX OFFICIO
Dr. Roger Buckland
BSc (Agr) '63
MSc (Agr) '65
Vice Principal (Macdonald College)
Dean Faculty of Agriculture

BEYOND THESE GATES

PROFILE: The Class of '51's Bill Ritchie

The 35th anniversary for the Class of '51 took place last September during Reunion '86. It was a special time for catching up on news and for reminiscing about days gone by but not forgotten. Graduates from that class have had successful careers in a variety of fields, one or two came back to Macdonald; many have kept in close touch. None is more proud of his days at Macdonald than J.W. "Bill" Ritchie.

"I make no bones about it," Bill Ritchie told former classmate Ralph Estey, Emeritus Professor in the Department of Plant Science, who kindly interviewed him for the Journal. "I owe a great deal to Macdonald College, and I attribute any success I may have achieved to the development I received here. The environment was so terrific. Education may have been important for some, but there were many of us who were here to learn the ways of life. We were like a big family that lived and worked together for four years. You got to know your classmates plus those in the years on either side of you. There was a mixture of rural and urban and a mixture of countries."

Read on and return to the Macdonald of the late 40s and early 50s - a time of fun and fellowship, and, obviously, the moulding of great character and fine people.

Ralph Estey I came to Macdonald from a rural New Brunswick background, where were you from?

Bill Ritchie I was born in Glace Bay, Nova Scotia, but my father was with the railways, and when I was very young he was transferred to Cornwall, Ontario, and then to Montreal. I went to Westhill High School and then in 1947 I came to Macdonald.

I had never been on the campus until I stepped off the train with my kit-bag and walked over to Macdonald - and on to the football field. As I had played football at Westhill and many of the students from the rural areas had not played the game, I was immediately drafted on to the team.



The Class of '51 with spouses and friends pose for the photographer at Grad Reunion '86. Left to right, front row: Ron Light, Janet (Purcell) Brown, Geoffrey Noble, Eleanor (Shepherd) Abbey. Second row: Ralph Estey, Ken Brown, Mary Louise (Gasper) Morrison, ?, Mary (Sandilands) Blanchard, Audrey Fraser, Diana (Lewes) Deputy. Third row: Bill Ritchie, Loma Ritchie, George Hobson, M. Hobson.

Actually anybody who had ever seen a football before was on the team!

Being a gregarious sort of person - I love people - I got to know many people and football led me into a lot of activities right from the start. In my third year I was elected President of the Literary and Debating Society, which was unusual as it usually went to a senior student, and then in my final year I ran for President of the Students' Council.

Ralph Estey Because I was brought up on a farm and had studied vocational agriculture I was reasonably familiar with the practical side of agriculture, but I had no experience at all with debating societies, working on the newspaper, putting on plays. I was fascinated with that aspect of life on campus and have fond memories of the old assembly hall.

Bill Ritchie Wednesday nights there would be interclass plays with each teacher's class and each degree class taking part. We had the drama festival here occasionally and our plays would go to Bishops or to McGill to appear in competition with other plays.

I remember the staff put on a play and both Drs. Rowles were in it. Someone had been accused of killing someone else with an axe, and the suspect was Mrs. Rowles but in the end she was proven innocent. In the last scene as the lights faded and the curtains drew, there was a silhouette of a woman that you knew was Mrs. Rowles with a big axe chopping down on something!

We always had distinguished visitors on special occasions during the year, and I remember one of the biggest thrills I had as

President of Students' Council was meeting John Diefenbaker who came to Macdonald as a guest speaker. It was my duty to take him back to the train station and, as the train was late, I had about half an hour to listen to him. That's something you don't forget.

Ralph Estey Do you remember the musical groups?

Bill Ritchie Keith Le Lacheur, Allison Stevenson, and Harold Blenkhorn - I still remember the songs he used to sing: "I learned about women from her" and "A mouse that gnawed through the kitchen door." Naive and simple by today's terms, but they were a lot of fun. Without fail after every lunch and supper we would gather in the Common Room and George Hobson, who had that happy ability of being able to play anything, would sit down at the piano. The room would be packed with 40 to 60 people standing around singing all the old favourites. Then it would be back to classes or studying.

I remember friends and fun. Two of my best friends after 35 years are Stuart Horne and John Evans who came over from England to study here at Macdonald. I can still remember those 20 or 21-year-old fellows on a Sunday with their straw hats, striped jackets, and flannels walking around the Oval with their canes. They were characters and people loved them.

I remember a panty raid when four members of our senior class raided the women's residence in the middle of the night and infiltrated up to the fourth floor. They wrecked havoc by turning over beds and stealing the odd item of apparel and then disappearing into the night. That was a major event on campus and there was a great row in the days that followed. A fine was assessed and Irene Thomas donated her green uniform which was cut up and pieces were sold to help pay it.

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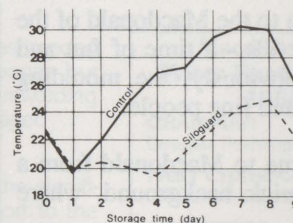
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BEYOND THESE GATES

MACDONALD GRADUATES HONOURED
FOR THE DEVELOPMENT OF NEW STRAWBERRY CULTIVARS

Where have all the grads gone!

One day we came out of the dining room after lunch to find that the Dips had put a horse in the foyer. A large, live, four-legged horse!

Many pranks were played in the men's residence. There was the time a couple of the fellows went around and nailed all the wastepaper baskets to the floor, and the poor women who were trying to tidy up would try to lift the baskets and couldn't. And we were forever moving people's furniture out on to the lawn. You would come back to find your whole room - bureaus, bed, chairs - all outside. The culmination of that was the day Ches Wallace was going back to his room and there were a couple of people struggling down the stairs with a chest of drawers. They asked him to give them a hand, which he did, and they finally got it out on the lawn. Turns out it was his own piece of furniture!

Ralph Estey Do you remember some of the wonderful staff who were here then?

Bill Ritchie Yes, being a small group we got to know them. Dr. Brittain, the Rowles, Dr. Common, Drs Macfarlane and Latimer in Economics, Professors Heimpel and Malloch in Engineering, and Professor Ness. I don't say this with any disrespect, but we couldn't think of a man in the whole of Canada who was more fond of cows. Did you ever hear him describe a cow? The head, the eyes, the fine back, the upright stance.

Ralph Estey Professor Hamilton loved his sheep and Professor Maw loved hens. We have people on staff now who are recognized world-wide in their fields, but I don't know if they have the same love of animals. They certainly couldn't have more.

Bill Ritchie Brad Walsh the Registrar knew everyone as did the girls in his office, Gwen Sydney and Nella McKellar and Norma Detlor and Nellie Brayne in the Library and Margaret Stewart in the dining room. Mrs. Strang, who was in charge of the women's residence, used to strike terror in the hearts of everyone. The door was

locked every night around nine, and if a girl didn't have a late pass, she had to ring the bell and face the music.

Ralph Estey There must have been some time for studying. As I mentioned I had taken a vocational course in agriculture. After getting out of the army with some credits, I taught school for awhile to save enough money to continue studying, and I went to the University of New Brunswick summer session for teachers and built up some more credits and was able to transfer those here. I took general agriculture but soon loaded it on the plant side which I have stayed with ever since.

When I left Macdonald I taught vocational agriculture at the Carleton County Vocational School in Woodstock, New Brunswick. That is in the potato-growing area, and I soon got acquainted with people at the University of Maine where a professor suggested I could teach botany and go on for my Master's degree which I did. By good fortune I was offered a scholarship at several universities, not because I was brilliant but because we had only been in Maine for a few weeks when the dean invited all foreign students to his home. At the end of the evening he told us that we had to make an average of 80 per cent to stay at the graduate faculty. No one made 80! I was in the 70s, so I studied and had an average of almost 90. They thought I was brilliant but in reality I was scared to death!

I chose McGill for my PhD, did a year in Connecticut, and then was offered a job back here, and I've spent 26 years on staff.

Bill Ritchie I took agricultural economics, and the reason I did was because there were no labs and there were only classes three days a week. I really didn't have too much time for studying!

A few of my economics classes were downtown at McGill where I became friends with Lorne Gale. Lorne has been the sparkplug of the grad society and though he's retired, he's still involved. He built the

grad society and alma mater fund to the state it is in today where it is recognized as being the leader in Canada and one of the leading ones in North America.

When I was finishing up, Lorne gave me a list of names, and one of them was A.E. Ames & Co., a national investment dealer. I stayed with them from 1951 to 1955, got married, and moved to Fredericton where another fellow and I bought an investment business.

Ralph Estey About that time, Dorean and I made our first investment in stocks with you and, I may tell you, they've done very well.

Bill Ritchie We sold our business in 1958 to Eastern Securities, a regional investment dealer, and they asked us to move to Halifax. In 1963 another fellow and I bought Scotia Bond and that's the one we have now. It's the only regional investment business in the area. I bought my partner out in 1983 and a few of my fellow workers and myself own the company - I have a controlling interest.

We also formed Keltic Savings in 1963. Where Scotia Bond helps you invest the money you have, Keltic helps you save low amounts towards the money you want to have. Keltic has grown and, at the present time, we are in the process of taking it public. Keltic, in turn, has bought part ownership in Scotia Bond, so the two companies will now be joined together through stock ownership.

Ralph Estey You are one of the more successful ones in our class, but I cannot think of anyone who did not have moderate success in his or her career. We have a minister, Jim Sorley, and several university professors. Eric Bradford is at the University of California, Ken Walsh at the University of Washington, Harold Gibbs at the University of Maine, and Gerry Friars is at the University of Guelph.

Continued on page 36

BEYOND THESE GATES

Where have all the grads gone!

We thought you might be interested in the recent geographical breakdown of where Mac graduates are now. Of the 5,125 on record in the graduates' office, naturally the most are right here in Quebec, but some of the other figures may surprise you.

CANADA

Quebec	1927
Ontario	1297
Nova Scotia	399
New Brunswick	231
British Columbia	169
Alberta	122
Prince Edward Island	110
Manitoba	58
Saskatchewan	56
Newfoundland	55
Yukon	2
Northwest Territories	1
TOTAL	4427

UNITED STATES

New York	47
California	35
Florida	19
Pennsylvania	17
Massachusetts	13
Michigan	11
Virginia	11
New Jersey	10
Maryland	9
Connecticut	8
Minnesota	8
Vermont	8
Illinois	7
Maine	7
Texas	7
Wisconsin	7
New Hampshire	6
Ohio	6
Columbia	5
Georgia	5

Iowa	5
Missouri	5
Washington	5
Indiana	4
North Carolina	4
Colorado	3
South Carolina	3
Arkansas	2
Arizona	2
Nebraska	2
Oregon	2
Rhode Island	2
Hawaii	1
Idaho	1
Kansas	1
Kentucky	1
Louisiana	1
Mississippi	1
District of South Dakota	1
Tennessee	1
Utah	1
TOTAL	294

COUNTRIES OTHER THAN THE UNITED STATES AND CANADA

Trinidad-Tobago	43
Jamaica	36
England	26
Malaysia	21
Australia	16
Barbados	15
Ghana	15
Hong Kong	13
Nigeria	13
West Indies	12
Indonesia	10
The Netherlands	10
Venezuela	10
Iraq	8
Kenya	8
Switzerland	8
France	7
Guyana	7
India	7
New Zealand	7
Pakistan	7
Bermuda	6

Taiwan	6
Sri Lanka	5
Brazil	4
Haiti	4
Israel	4
Singapore	4
Argentina	3
Belize	3
Chili	3
Colombia	3
Maiawi	3
South Africa	3
Zaire	3
Bangladesh	2
Cyprus	2
Greece	2
Ivory Coast	2
Kuwait	2
Mauritius	2
Mexico	2
Peru	2
Scotland	2
Sierre Leone	2
Sudan	2
Tanzania	2
Thailand	2
Antigua	1
Bahamas	1
Burundi	1
China	1
Cuba	1
Denmark	1
Dominican Rep.	1
Egypt	1
Honduras	1
Iran	1
Italy	1
Japan	1
Lebanon	1
Lesotho	1
Mauritania	1
Morocco	1
Northern Ireland	1
Portugal	1
Saudi Arabia	1
Syria	1
Tunisia	1
Uganda	1
United Arab Emir	1
Upper Volta	1
Zambia	1

TOTAL 404

BEYOND THESE GATES

MACDONALD GRADUATES HONOURED FOR THE DEVELOPMENT OF NEW STRAWBERRY CULTIVARS

Two of Macdonald's graduates, Dr. D.L. Craig, BSc(Agr) '47, and Dr. C.L. Ricketson, BSc(Agr) '53, have received special awards for the development of strawberry cultivars for eastern Canada. Dr. Ricketson's cultivar, "Veestar," was the recipient of the 1983 Canadian Society for Horticultural Science "Outstanding Cultivar Award" and Dr. Craig's "Bounty," the recipient in 1985. Dr. Craig's breeding program conducted at the Agricultural Research Station in Kentville, Nova Scotia, and Dr. Ricketson's at the Horticultural Research Institute of Ontario (H.R.L.O.), Vineland Station, Ontario, have produced a series of outstanding cultivars that currently dominate the strawberry scene in eastern Canada where 5,000 hectares annually produce 50 million quarts of fruit.

Dr. Don Craig, who retired from Agriculture Canada in 1983 after 36 years of service, started breeding strawberries during the late 1950s. During the ensuing years, and after numerous breeding experiments and the evaluation of several hundred thousand seedlings, the resultant cultivar parade is as follows: Acadia (introduced in 1965), Bounty ('72), Micmac ('75), Kent ('81), Glooscap ('82), Annapolis ('84), Blomidon ('84), Cornwallis ('84).

The Kentville objective for many years was to develop new cultivars that produced large, firm, high quality fruit which were productive and late maturing. In 1979 it became evident that any new introduction must be tolerant of the root destroying fungus *phytophthora fragariae* (red steele). Known sources of resistance were injected into the program, resulting in the tolerant cultivars Annapolis and Cornwallis. The production of a seasonal range of "red steele" tolerant cultivars is one of the current priorities for the on-going Kentville strawberry breeding program.

The Kentville award-winning cultivar "Bounty," which came from a cross involv-

ing the New Jersey cultivar Jerseybelle and the German cultivar Senga Sengana, has outstanding fruit quality. Bounty has proven very popular as a late maturing cultivar for eastern Canada and has also found favour in the United States and in Europe. The more recent introduction, Kent, has received much acclaim from Canadian and U.S. producers. This mid-season, large-fruited, firm berry has produced record breaking yields for many producers. Kent, the current dominant cultivar in Nova Scotia, is proving very popular from Newfoundland to Saskatchewan and is now listed as a new and promising cultivar in several U.S. states. Plant sales from Nova Scotia nurseries have increased from 155,175 in the year of its introduction (1981) to 2,493,000 in 1985. More than a million of these went to Manitoba. Plant breeders at the U.S. Department of Agriculture, Beltsville, Maryland, are making

extensive use of Kent in their effort to produce hardy, productive cultivars for the northern states.

Dr. Lewis Ricketson joined the H.R.I.O. in Vineland, Ontario, in 1958 and remained there as a research scientist until 1980 when he resigned and joined Agriculture Canada at Kentville to head up the Station's vegetable research program. While at the H.R.I.O., Dr. Ricketson conducted an extensive strawberry breeding program that resulted in the award-winning cultivar "Veestar." Veestar, a selection from a Sparkle x Valentine cross, has been extremely popular since its introduction in 1967. It has had a major impact on eastern Canada's strawberry industry as well as in some of the U.S. production areas with plant sales well over 100 million. Because it is very early, of high quality and somewhat resistant to verticillium wilt it has been the



From the smiles, one may presume that Drs. Craig and Ricketson are pleased with this particular crop of strawberries.

number one cultivar for the U-Pick market. Other cultivars from Dr. Ricketson's breeding program include Vibrant ('67), Vantage ('80), Veegem ('80), Veeglow ('80), as well as the cultivars Governor, Simcoe and Secord bred and selected by Dr. Ricketson and introduced in 1985 by Dr. Adam Dale, his successor at H.R.I.O.

The most devastating disease for Ontario strawberry growers is verticillium wilt caused mainly by the fungus *Verticillium albo-atrum*. The incorporation of resistance to this disease into very acceptable cultivars such as Vantage was a very significant accomplishment - the result of carefully controlled laboratory and field experimentation.

Breeding was not the only strawberry research undertaken by Drs. Craig and Ricketson during their research careers. In spite of being many miles apart, their program flowed on a more or less parallel course. Both were occupied with extensive cultivar evaluation trials in which cultivars from around the world were evaluated and in some cases recommended to growers and in other cases utilized in their breeding programs. Both conducted detailed plant management experiments, wrote numerous bulletins on culture, spoke at local grower meetings and at national and international meetings, published research results, and prepared popular articles for the press. Dr. Ricketson conducted much of the experimental testing that led to the registration of the herbicide Sinbar for eastern Canadian strawberry growers. He also pioneered in the development of a solid bed system of strawberry culture where plants are not confined to rows, but are allowed to cover the entire soil area. This system is being utilized in research on mechanical harvesting.

Drs. Craig and Ricketson, in their respective provinces, initiated strawberry plant production schemes for the multiplication of virus-free plants. The Kentville certifica-

tion program, the first in Canada, was established cooperatively with the Nova Scotia Department of Agriculture and Marketing in 1956. Since its inception, Nova Scotia nurserymen have produced and distributed to many provinces and states 100 million plants having a farm value of \$6 million.

The Ontario certification program established in 1961 is similar to the Kentville program, and it has also produced millions of superior plants which have had a very significant impact on Ontario's strawberry production as well as on production in other provinces and states. Prior to the establishment of these programs virtually all Canadian strawberry plants were infected with virus diseases which reduced plant growth and fruit yield.

The latest technology, that of plant tissue culture, is now employed by the Nova Scotia plant production program to further improve the quality of plant material available to nurserymen.

Drs. Craig and Ricketson are proud of their strawberry research track record. Their cultivars are like children to them. To

know that they are performing well is indeed satisfying as is the fact that all of eastern Canada's growers and many in the U.S. and in Europe have benefited greatly from their introduction. Their other strawberry research accomplishments simply provide additional satisfaction - adding to the feeling of jobs well done.

Editor's Note: Upon retiring in 1983, Dr. Craig maintained an office at the Kentville Research Station in order to tidy up the loose ends of 36 years of horticultural research.

In October of 1984 he joined the Sheffield Nurseries located some five miles north of Kentville at Upper Canard. He has continued to serve Sheffield Nurseries as Scientific and Technical Advisor to the laboratory involved in the commercial production of ornamental and fruit crop plants produced in a tissue culture.

This new role keeps Dr. Craig fully occupied, serving a large staff, attending regional, national and international meetings and receiving the many visitors that come to Sheffield Nurseries.

Continued from page 33

Bill Ritchie Russ Duckworth is Executive Director of the Marketing Division of the Ontario Ministry of Agriculture and Food, Art Abbey has done extremely well in the construction business, Chas Berry is on staff at Princeton, Ed Cashman is a doctor, and Gene Fowkes went back to Jamaica to work in the government. Nor can we forget Ross Hennigar, who at the time of his tragic death in a plane crash in 1983, was President of Suncor Inc. I'm not too sure what all the Home Ec girls did but I do know that Audrey Fraser retired recently from her position as senior dietitian at the Royal Victoria Hospital and Diana Lewes Deputy was head dietitian at a hospital in Virginia.

Ralph Estey And you and I still have our ties with Macdonald.

Bill Ritchie Yes. I was president of the McGill Society in Halifax for about 20 years. There are a lot of grads in our area, and we do try to get together at least once a year. Occasionally we have a telephon, and recently I was asked to be Chairman of the McGill Advancement Program for the Halifax area. Why am I still interested in Macdonald? As I said earlier, I developed here, and I owe a great deal to the college. I cherish the memories and I enjoy coming back as often as I can.

DIPLOMA CORNER

Taking the Next Step

by Hazel M. Clarke

Graduation ceremonies for the Diploma Class of '86 took place last October and, as our Diploma Corner has not as yet focused on this annual event, we took advantage of the opportunity to chat with the graduates, their parents, friends, and college staff. The overriding feeling was one of excitement, of change and of challenge, and, for several, travel plans were in the immediate offing. The home farm would have to wait awhile - there's a world out there to conquer.

Keith Richman had a special guest at the ceremonies - Tommy Smith from Grenada watched his new friend receive his scroll. He was visiting Canada and Keith for six weeks as part of an exchange program sponsored by the Quebec Young Farmers Federation, Canadian Crossroads International, the National Farmers Union, and four Caribbean farm unions. Keith, in turn, planned to leave the following morning to visit Tommy's home.

"Fifteen Canadians are part of the exchange," Keith said, "and I am one of the three people from Quebec that were chosen. Interestingly enough the other two are also Diploma graduates as well as members of the Quebec Young Farmers - Paul Bertrand, Dip '83, from Calumet Island, and Peter MacKinnon, Dip '85, from Coaticook."

"When the QYF was first approached by Crossroads to participate in the exchange," Shannon Keenan, QYF Provincial Coordinator, told me a month or so later when I visited her in her office to learn more about the exchange program. "I saw the program as an opportunity for QYF members to gain a better understanding of people also involved in farming but from a totally different culture. Towards the end of the program I could see that the three participants had learned even more than I had anticipated. The exchange also placed a lot of emphasis on the development of leadership skills and a stronger sense of commitment to their farm organization. I think all three QYFers on the exchange are prepared to take an even more active role in the QYF and in their community."

Back at the graduation ceremonies, Keith told me, "I'll be down on Tommy's farm for six weeks. Tommy tells me that the agriculture in Grenada is different from ours and, as I'm a beginning farmer and am interested in growing vegetables organically, that is ideal for what I would like to look at as, for one thing, he isn't mechanized as we are in Canada."

"My family have 25 cultivated acres," Tommy told me, "We grow bananas, nutmegs, cocoa, and dasheen, but right now I'm finding travelling pretty exciting." Tommy said he had visited various farms and had been to Toronto, where all the participants met for an orientation session, Ottawa, Sherbrooke, and other towns in the Townships where Keith is experimenting with different vegetables and different soils on his parents' farm in the Richmond area. He has tried everything from pumpkins, to tomatoes, squashes, and zucchini.

"I'm from Montreal but spent summers on my parents' farm so I've seen the best of both worlds, and I think I've chosen the better one," Keith said.

Peter Mackinnon travelled to St. Vincent where Michael Richardson, his exchange partner came from. Michael found Canada a big country. "Not surprising," said Peter, "when most areas of his Island are only 20 miles long." He also found our fall rather cool but, in contrast, Peter was shocked by the 34°C temperatures accompanied by high humidity!

"While Michael was visiting us," Peter said, "I tried to get him to local QYF meetings, and while I was in St. Vincent I went to two board meetings of their local union and spoke about agriculture in Canada."

Michael has a 10-acre banana plantation. Peter found the land where the bananas are grown incredibly steep. "The terrain is rough," he said, "and there are almost no fields that are big or flat enough to work with tractors or machinery. All the work is done by hand."



Marcel Couture, left, receives class picture from Class President James Duffy.

Peter helped pack bananas - 16 kg per box - and carried them to a pick-up truck on his head. They went next to a check-in station where they were weighed and the farmers were paid. The bananas were then shipped by boat to England.

"I had a super good time participating in this exchange program, and I consider the experience invaluable," Peter concluded.

Paul Bertrand's exchange partner was George Dornelly from St. Lucia. George is from a six-acre banana farm, and naturally he, too, found quite a difference when he visited Paul's beef operation during his stay at Calumet Island. As did the other young farmers from the Caribbean, George got an opportunity to see other types of farming and to visit fairs, towns, and cities in the area. George noted that farming in Canada is so much more mechanized than in the Caribbean.

Shannon Keenan said that the advantages and disadvantages of the highly mechanized agriculture in Canada and the lack of mechanization in the Caribbean were mentioned often by all the young farmers.

Both Tommy Smith and Keith Richman were hit by the travel bug. Tommy planned to visit some of the other islands in the Caribbean and then thought he might like to come back to Canada to get into organic farming here. Keith, too, planned to visit

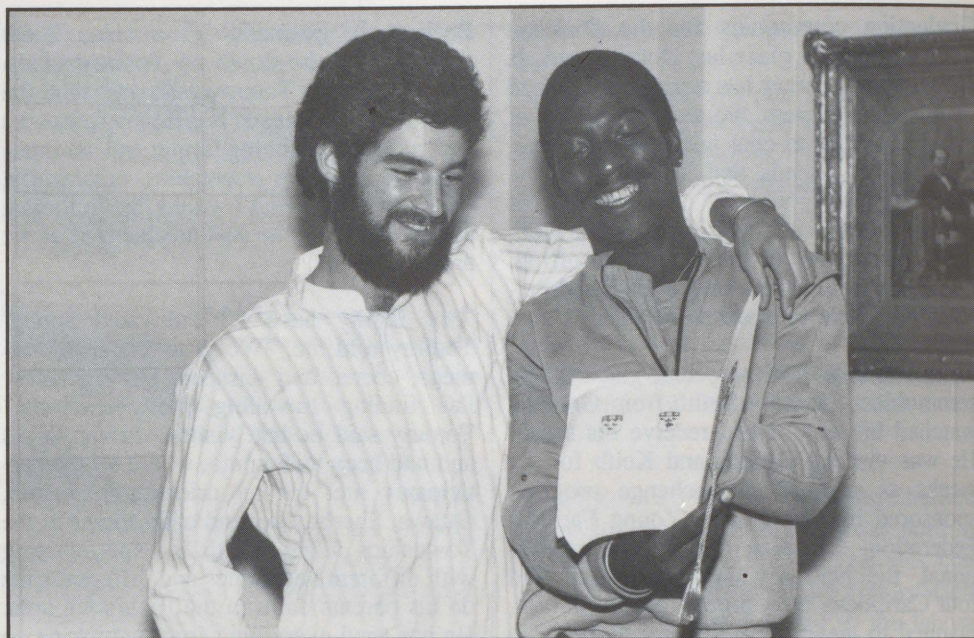
the other islands and then go on to Colombia where a recent Macdonald graduate, Daniel Barre, BSc (Agr) '85 has a farm. Once the travelling is over: "I'm interested in self-sufficiency farming and possibly producing extra for people in the community. It would be great if I could strike up an arrangement with the local stores for my produce."

Not everyone at the grad ceremonies was escaping our Quebec winter nor wanted to. "I'm back home on our dairy farm," Stewart Grainger from Melbourne told me, "and I love it." As far as studying at Macdonald was concerned, Stewart said, "If you want an education in agriculture, this is a good place. The courses are good and you make great friends."

Another planning to stay on the home farm was Jim Dempsey from Inverness. He did qualify that statement by saying that he would also like to do a little travelling in Canada over the next few years as well. As education doesn't stop with the presentation of a scroll, this educational aspect can also be commended.

Combining several tasks, including working at the home farm, Thomas Coddington of Melbourne, enjoyed his years at Macdonald. He's back at school taking some courses and hopes to get a part-time job, possibly in welding, near home. Craig Findlay, on the other hand, isn't that close to home but he is farming. Originally from Danville, he was working on the same farm in Shawville that he did his stage on during the summer months.

Robert Annett from Price in the Gaspé was so busy telling me how pleased he was to be back at Macdonald with his friends - "this was the best two years of my life!" - that he forgot to tell me where he is working. Scott Kirby, originally from Compton, on the other hand, did find time: "Being on the Shur-Gain Research farm is a



Keith Richman, left, and his new friend from Grenada Tom Smith at the graduation ceremonies. These two young farmers exchanged visits.



Three Dips in the Caribbean: l to r, Paul Bertrand, Keith Richman, and Peter MacKinnon.

great learning experience," he said, "and I'm working with Macdonald people -- the manager Bob Robson is a BSc (Agr) '65 graduate and Blair Macdonald is Dip '80.

Two other Dips were also working away from home: David Bahler from Ste. Eulalie, who graduated with great distinction and received the Quebec Ministry of Agriculture Gold Medal, is working as a replacement farmer for 13 different farmers in the Mirabel area. "I'm still learning a lot as I travel from farm to farm," he pointed out. "I come from a farm and my friends are farming; maybe I'll have my own farm some day but meanwhile, I want to learn more."

Paul Raymond of Beaconsfield was also learning. He was back studying at the nearby John Abbott CEGEP so he could come back to Macdonald to start on a degree program.

Working off the farm, on the farm, and travelling were all part of James Duffy's itinerary. From South Durham, James graduated with distinction and, as Class President, showed the leadership capabilities he started acquiring at high school and will, undoubtedly carry with him into the future. At the time of the graduation ceremonies James was working in a feed store in Magog, but he planned to go back to the home farm in the new year. To stay? "Yes, but not necessarily right away. I would like to do some travelling before I settle down." As with other Dip grads - Neil Burns, Angus MacKinnon -- New Zealand beckons and he hopes to go there this coming fall.

To these students and the others who graduated that day Roger Buckland, Dean of the Faculty of Agriculture, pointed out that they carry a burden of responsibility on their shoulders. "You are very important people. In this province it has been estimated that only 10 to 15 per cent of young people on farms have had any post secondary education in agriculture. Figures from Ontario are 30 per cent, from England 50 per cent, from Switzerland 70 per cent. Education is important for two reasons: as graduates you are now in a much better position to deal with the highly technical as well as the complicated management

aspects of running a farm as a business enterprise. You have taken courses in areas other than agriculture and these are just as important. They could even be more important in that they will have helped to prepare you to become future leaders in your community."

James Duffy's father, Ron, a Dip '56 graduate echoed these words. "A Diploma means that you are much more qualified to take part in your community. And," he added, "you have made a great many contacts and friends. The friendships you make last a lifetime." He also had a few comments on the Diploma Program: "I cannot advocate strongly enough that the boys from our community come to Macdonald. Apart from the education, coming to Mac gives you a chance to rub shoulders with people you might not ordinarily meet."

Continued from page 27

fer and artificial insemination technology, with additional training on modern computerized record keeping. Equipment and supplies are being assembled in order to set up a modern Artificial Insemination Unit and a modern Embryo Transfer Unit for dairy cattle at Sakha and in Kafr El-Sheik. Three hundred vials of Canadian bull semen will provide a nucleus on which to build an adapted local technology suitable for conditions in Egypt. In addition Canadian trained personnel will work at the Pyramid Animal Research Station in an attempt to improve the river buffalo which is as important as the dairy cow in Egypt.

Soil Improvement

Land which a few years ago was subjected to a single natural flooding leading to one crop in a year is now providing two or three crops per year as a result of year round water availability from large dams. Many problems have developed. Dr. Angus MacKenzie was enlisted to advise in this area. Consequently, modern equipment is being purchased to develop the Central Soil

Marcel Couture, Director of the Diploma Program, reminded the graduates that they had acquired much more than technical training. "It is the human side of you - perseverance, believing in yourself because if you believe in yourself, others will believe in you, and various communication skills - that will count as you go through life." He also reminded the graduates that the doors of Macdonald would always be open to them.

Going back to the home farm, starting a small organic farm, getting another degree, taking time off to see the world - or part of it - or leaving the familiar setting of home and campus and taking the next step forward - all the various, interesting directions in which the Diploma Class of '86 are going were summed up best by James Duffy's mother Muriel, "The Diploma Program is an excellent springboard for whatever you want to do later in life."

Testing Lab. Automated analyses and personal computers for data processing are essential for soil fertility recommendations. Another modern technology will be introduced to help in planning. This goes under the name CARIS (Computer Aided Resource Information System) and refers to the fact that the vast amounts of soil data can be processed by computer and maps can be created and drawn rapidly.

Seed Handling

Farmers depend on genetically superior, clean, viable seed for high yields. State farms have introduced some of the modern technology to do this. However, four locations have been identified as having pieces of equipment lacking. CEMARP is rectifying this situation.

Nitrogen Fixation

The process whereby certain micro-organisms fix atmospheric nitrogen and make it

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QWI

EXECUTIVE CORNER

Scholastic Awards

It was my first experience as QWI representative at the Macdonald College Awards Night Banquet, which was held in the Stewart Dining Room on November 6th. I was replacing QWI President Lucy French, who was leaving for Korea. Sheila Washer, QWI Provincial Secretary, kindly accepted to accompany me.

At the pre-banquet reception I had the pleasure of meeting the recipient of one of our bursaries - a young man formerly from Switzerland who is enjoying living in Canada very much.

At the banquet it was refreshing to meet other students full of enthusiasm and aspirations. I was extremely impressed with the number of awards which were presented. It is gratifying to know that so many people are interested in encouraging and furthering studies in the School of Dietetics, in Agriculture, and in the Diploma Program.

Maryse Therrien, a charming girl from Ayer's Cliff who is in her second year as a Dietetics major, received the Frederica Campbell MacFarlane Prize. Unfortunately, the recipient of the Mrs. Alfred Watt Memorial Prize, Marie Lucie Roy, who is studying Home Economics and, though originally from Beauce, is living in Montreal, was unable to attend. She sent her regrets and an expression of appreciation for the award.

Markus Mueller, who is in his last year of the Diploma Program, received the QWI Bursary. On graduation, he will work on the family farm in Hudson.

I felt very proud to represent you at this auspicious ceremony.

Elsie Prevost,
2nd Vice President, QWI

The First Informer - The Birth of a Newspaper!

Thanks to the initiative and support of the Grosse Isle branch of the Women's Institutes on the Magdalen Islands and the hard work of a small group of people, the first tabloid edition of *The First Informer*, with a print run of over 600 copies, appeared on the Islands on November 7, 1986.

The seed for this first edition was planted in 1984 when the WI members discussed the problem of the lack of news in English on the Islands. The Islands have about 1,000 anglophones in a total population of some 15,000. They had access to the French language paper "*Le Radar*" and five minutes of news on the local radio station. They decided that a newsletter would be an ideal start and applied for a Canada Works Project grant, which was received. Work on the first newsletter started in February 1985.

Two proud staffers on the paper: Beth Keating, and Connie Boudreault, who is also a WI member, describe its early days: "*The First Informer* was typed up on an old beat up typewriter held together by rubber bands - for a belt - on 8 1/2 by 14-inch sheets and then photocopied on both sides on the municipal council's small photocopier."

"This small newsletter with a circulation of 192 was well received by the anglophone Madelinots and we had requests for copies to be sent to the mainland. When an issue was late we got calls from people looking for the *Informer*. Our readers especially like the school news, the police reports, and the social news. Towards the end of the project the three people working on it asked other community members to help and *The First Informer Incorporated* was formed. We received extra financial assistance from the government which enabled us to buy an electronic typewriter and to rent a larger



Beth Keating, Ross Dickson, and Connie Boudreault admire the first tabloid edition of the *First Informer* which the girls brought to AQREM's 1986 semi-annual meeting held at the Gault Estate last fall.

photocopying machine which could reduce and enlarge copy and photos. We were in business!

"The demand for copies from ex-Madelinots was so great that we began a subscription service at \$15 per year; anglophone Madelinots received *The First Informer* without charge. When the Canada Works Project ended, the three workers continued to produce the newspaper on a voluntary basis and, with the help of further financing, we were able to work on changing the paper's format by hiring and training three young people. We've made two changes: first to pony for three issues and then to tabloid on November 7th. In order to make it more self-supporting, we are no longer supplying the paper to Madelinots free of charge. As many had already made contributions and helped with fund raising, we felt they would be willing to pay."

"Ross Dickson, Editor of *The Equity* came to visit the Magdalen Islands for a couple of days in the fall and was of great assistance in helping us to prepare for the change of format. We applied for membership in AQREM, Association of Quebec Regional English Media, and have been accepted for a probationary one-year period."

Continued success and congratulations to all who have had a hand in getting *The First Informer* into print!

IN STITCHES

This is convention month and for those who may not have had the pleasure we though you might like to "meet the judge."



Service to the community and her profession are of high priority to Home Economist Liz Jennaway-Eaman. A Quebec resident for the past 18 years, Liz has been president of the Quebec Association of Home Economics Educators (QAHEE), Quebec Home Economics Association (QHEA), and the Apparel Studies Association of Canada (ASAC). At the national level she was English Quebec's regional director for the Canadian Home Economics Association (CHEA) and the QHEA's 1986 voting delegate at the International Federation of Home Economics Council in Austria.

Equally at home in English or French, Liz frequently chairs the bilingual Canadian

Standards Association's (CSA) Montreal Consumer Advisory panel. She is also CHEA's Textile and Clothing Committee chairman and their representative on two federal government committees: revising standards for flammability of children's sleepwear, and Canadian Standard Sizing for adult and children's clothing.

Her recent research in collaboration with B. Stafford-Smith examines the consumer knowledge and behaviour of CEGEP students. With Dr. Shirley Weber and others she is developing computer software to aid the nutrition comprehension level of vocational students.

Working as QWI's provincial handicraft judge and writing "In Stitches" keeps Liz in touch with her rural roots, and the skills she acquired during her English college training. Her judging skills were developed by her professors who demanded perfection in the mastery of crafts as a necessary prerequisite for Home Economics professionals.

Following a McGill Master's degree in Home Economics Education, Liz joined the Macdonald staff in 1973, moving to Education in 1984. She teaches courses in Textiles, Family Resource Management, History of Costume, and Psychology and Sociology of Clothing.

PLEASE TAKE NOTE

QWI Annual Convention will be held on May 11 (Executive), 12 (Board), and 13 and 14 (Open), 1987.

The ACWW Mini Conference will be held May 11, 12, and 13, 1987 at Mill River Resort & Conference Centre, Woodstock, P.E.I. Theme: Action Can Work Wonders. Registration fee of \$95 includes accommodation in shared room and meals.

A National Quilters Conference will be



QWI President Lucy French thanks the participants in the Freer Trade Seminar, including, l to r, Elsie Prevost, Serge Deschamps, Marc Côté, Moderator, Warren Grapes, Roger D'Aoust, and Paul Ouellet.

held from May 28-31, at the Loyola Campus, Montreal. For information, write to Quilt Canada 87, Box 486, St. Lambert, Que. J4P 3R8 (514) 671-0559

Area Rally in the Gaspé

In September Sheila Washer, Secretary, Audrey Allen, 1st Vice- President, Elsie Prevost, 2nd Vice-President, and I took turns driving while going to the Gaspé to participate in an area rally for Gaspé, Bonaventure, and Magdalen Islands Counties. We enjoyed real QWI hospitality as the members provided meals and accommodations.

Audrey, Sheila, and I left home on September 17 and drove to Val Cartier where Elsie provided food and rooms for Sheila and I, while Myrthel Oliver took care of Audrey. We started out bright and early the next morning and stopped to enjoy lunch at a roadside picnic area in Trois Pistols on the banks of the St. Lawrence River. Then it was on to Black Cape where Daisy Henderson welcomed us with a lovely fresh Gaspé salmon dinner. In the evening about 50 members greeted us in a local church hall. Sheila went home with Daisy; Elsie with Dorothy McNair, and Audrey and I with Lil MacWhirter.

Friday morning took us to the Grand Cascapedia branch hall where the ladies had more coffee and goodies. Then on to Ethelyn Vautier at Shigawake where we were entertained with a lovely lunch and given the opportunity to meet and talk with more members of Bonaventure County. Sheila stayed with Ethelyn; Elsie went home with Evelyn Prevost, while Audrey and I drove on to Douglastown and enjoyed hospitality in the home of Elma Baird.

The rally in Gaspé on Saturday lasted all day with workshops on the needs and future of the WI. Members from Gaspé County provided a nice lunch and celebrated our 75th with a turkey dinner in the evening, after which they provided entertainment with music and plays. Elma Baird provided

hospitality for all four that night and gave us a good breakfast before we left for the long drive back to Val Cartier next morning. Elsie and Myrthel once again were our kind hosts. Audrey, Sheila, and I started for our homes on Monday.

We enjoyed meeting so many WI members and will not soon forget the wonderful hospitality.

Lucy French
QWI President

SAFETY FIRST

Children's Safety : Congratulations go to Speedy Muffler King for their contribution to child safety. As a community service, the company will lend 10,000 infant car seats to parents for the next year. Parents pay a \$20 deposit, which is refunded when the seat is returned. The seats are the government-approved rear-facing baby seats designed for infants up to 20 pounds. All the original seats have been distributed, but as they are returned they will be refurbished and loaned out again.



I read in the Gazette recently that Mr. Glen Williams has invented a child-resistant" device which won first place among individual inventors in the Innovation '86 contest organized by the Centre for Industrial Innovation Montreal. This device fits over a child - 20 pounds and over - from just above the knee to below the breastbone. The regular car seats belts are used to fasten it. It provides more protection and distributes the force of impact over a much larger area. This device is not yet in production for general use, but it is worth looking out for in the future.

Winter is a time of fun for children. Building snowmen, sliding down hills, tunneling in snow banks, and making snow angels. Some of these activities can be dan-

gerous, toboggoning for one. The area should be safe from traffic. If the slide ends up on ice, it can be a hazard when the spring thaw starts and children should be warned and supervised in these areas. Snowbanks along roads should not be used for tunnelling. A snow blower removing snow can inflict terrible injuries on any child in such a place. Supervision and good sense should make winter fun and safe for our children.

Anne Robertson

The Brompton Road Horror

You've all heard about the Amittville Horror. Well there's another one in the Brompton Road branch and this one is worse; it resides in your home for six months!

It's described as an ugly looking thing, something like Grumpy of the Seven Dwarfs, but said to be a lot worse! I had thought that Grumpy was cute, so this leaves me wondering what this Horror really looks like. Can it be as bad as all that?

To obtain this little Horror, several items are placed in plain brown paper bags and one contains IT. These bags are then auctioned off. The recipient must then have the Horror displayed in a prominent spot in her home for six months - until the next auction.

Beth Cullen is credited for bringing the Horror into the branch auctions. You will have to admit that it will certainly brighten up future meetings.

Greta Billing has had the Horror visiting with her and her family during the past six months - we wonder how they get along. Who will be lucky enough to receive the Brompton Road Horror next? I'm glad it isn't me!

Darleen Sabetta

WITH THE BRANCHES

ARGENTEUIL Brownsburg is planning for their 60th anniversary and they won first prize for their display at the Fair. Dalesville-Louisa had three guests from England join them for a meeting and had a guest speaker from the Nora Beverages Inc. Frontier enjoyed a tour of a local industry, Price Wilson. This is a most interesting and educational project as there is much to learn about paper. Jerusalem-Bethany presented a mohair throw to Mrs. Jessie Kettle on the occasion of her 100th birthday. At a later meeting they listened to guest speaker, the Rev. Malcolm speak on the people of Taiwan, India, and China, based on the years he was a missionary in these areas. Lakefield have had three new members join their branch and as well bid the former President, Betty Haberl, farewell as she will be moving to Ottawa to live. Many happy visits to Betty's home will be remembered. Pioneer extend congratulations to Sandra Smith (Alma's granddaughter) who was the recipient of the CNE Agricultural Scholarship.

BALDWIN CARTIER West Island presented Elizabeth Knox Hubbard with her 50-year pin. The evening was extra special for Beth as some of her dear friends from the Rawdon branch (Beth was a member of that branch for many years) took the time to attend the West Island meeting. Jean Merrifield and Brenda Wallace spoke about the Women's Institutes in the British Isles, which provided an insight into a very different concept of the WI, with waiting lists for membership and a college set up by the WI. At a more recent meeting, a guest speaker was Dean Buckland from Macdonald College.

BROME Abercorn The annual yard sale was a great success with its many tables of cooking and handicrafts. Austin branch member Sylvia Hopps won first prize in the parasol contest at the 75th anniversary picnic. South Bolton members had a chance to visit the Stanbridge East Museum with its yesteryear displays of an old school, shoemaker, cabinet maker, and so on.

Sutton had a sales table at the Sutton Farmer and Craft Saturday market and sold needlework and specialized in the sale of muffins.

COMPTON Brookbury had a sale of vegetables and canned goods and also a sale for the benefit of the school kitchen. Sawyerville had a guest speaker show slides and literature on a trip as a student to England in 1979; the commentary was quite interesting.

MEGANTIC Inverness members Margaret Dempsey, Evelyn Lennon, and Alice Muir served tea and coffee in the Oddfellows Hall to 38 people from the Wales Home. A donation was made to the Hoodless Foundation Fund in memory of the late Mrs. Iva Wright. A committee was drawn up to buy gifts for former residents of Inverness who are now in the Wales Home. Kinnear's Mills have been saddened by the death of one of their oldest members, Mrs. Lily Rothney. Educational and Cultural Activities Convener gave a report on Grade VI children and their teacher who ran on Terry Fox Day and to date have collected \$216. And this branch passes along this tip: cut off the cuffs of white socks to keep for cuts, burns, and sprains.

MISSISQUOI Members in this county listened to a free lance reporter speak on the environment and the concerns and fears of using pesticides. They were given a demonstration on how to decorate Easter eggs, partook of a guided tour of the federal research farm near Frelighsburg, and also entertained members of les Cercles de Fermieres.

RICHMOND Publicity Conveners had a float for Richmond's Canada Day parade with the WI's 75th anniversary as a theme. The float was pulled by tractor driven by Joyce Mastine in a long skirt, shawl, and a flowered sun hat. The old WI offices were represented. Citizenship: Judge Vicki Lancaster swore in Dutch immigrant (Diane Webster). Education: Mrs. Boscomb, the county school teacher, was trying to teach unruly Rita Olney and shy Mrs. Latter. Legislation: Vera Hughes paraded with a plac-

ard wanting the right to vote and better education for the children. Agriculture: Mary Banfill in overalls and pitch fork carried a milk can and wanted the milk pasteurized. Child Welfare was represented with a couple of cute children, Angela and Timmy Stevens receiving their immunization shots from the nurse (Grandma Stevens). Social Services had Debbie Stalker rolling bandages for the Red Cross. All WI members were dressed according to the office they represented, and a great WI float travelled around the town.

ROUVILLE Abbotsford had many children from Granby come down to the Rowell Orchard. They picked apples and took them back to the school where the apples were made into applesauce, etc. A tractor ride through the orchard added to their fun in the country.

SHEFFORD pass along these thoughts: Asbestos fibre is frowned upon, but it has saved many lives from fire. To transfer a hot, cooked turkey from a roasting pan to a platter, wear an oven mitt covered with a plastic bag on each hand.

SHERBROOKE Ascot had a meeting at the Grace Christian Home and served a salad supper to the people in the home. Belvidere gave a donation to the Canadian Cancer Society. Brompton Road gave a prize to the member with the oldest stamp. Lennoxville at one of their meetings they learned how to decorate a cake. I guess the best part was when they shared it for lunch. Milby had a guest speaker from the Galt School.

STANSTEAD Ayer's Cliff had Mr. La Rose speak on UNICEF. Beebe gave a donation to the Palliative Care Centre at the Sherbrooke Hospital. Hatley had Mr. Jobel show how to make posters and a bingo was played. Hatley Centre visited the Lennoxville-Ascot Museum. Stanstead North gave proceeds from a quilt and cushion towards the cost of repairs to Mansur School.

Darleen Sabetta
QWI Publicity

THROUGH THE YEARS

THE SHOW GOES ON PART II

by Margarete Zillig, BSc (Agr) '84

(In Part I, which was published in the November 1986 issue of The Macdonald Journal, the author, with the assistance of personal interviews and through correspondence with some dozen or so past participants in the Livestock Show, traced the development of the Show since its inception in 1948 when a group of students including John Hamilton, Gordon Curtain, Val Swail, and Murray Templeton "hit upon the idea of putting together a College Royal." In Part I we learn about the Animal Husbandry Club Shield, the Novice Class started in 1958, the traditional showing of hogs, sheep, beef cattle, and Holsteins and Ayrshires enlarged to include Jerseys, the student judging competitions, the intercollegiate judging competition started in 1979, the Diploma students' participation, the many individuals over the years that have found a sense of humour, a sense of pride or accomplishment, the winners and the losers - all part of what has made the Livestock Show one of the highlights of the college year.)

Faculty Support

Faculty support for the annual Livestock Show has been variable over the years. Val Swail ('48) described with considerable excitement the situation on campus prior to the first College Royal. Although the Animal Husbandry professors, A.R. Ness and L. H. Hamilton, were the event's "best boosters," the rest of the staff were not generally supportive. In fact, the Dean for Teachers initially refused to permit his students to participate and the McGill Board of Governors ruled that classes should not be cancelled on the Friday of the Royal weekend. According to Swail, "the students threatened a revolt," refusing to attend lectures on that final day of preparation. Only a few days before the big event did the administration reverse its decision; students were free to put the finishing touches on their efforts. He remembered that the large crowds and overwhelming public support

did much to allay the fears of those faculty members who had been apprehensive of such a student organized event on campus.

Many of the people involved in the early shows whom I interviewed commended the role of Professors Hamilton and Ness. "The Royals from 1951 to 1955," wrote Russ Dow, "were guided and avidly promoted by two very capable, practical professors. These men were masters in their own way of promoting the bridging of the gap between theory and practice." Robert Ness described Animal Husbandry faculty involvement: they "didn't partake in either the showing or judging but they certainly showed a great deal of interest in the Livestock Show. They were there to meet the visitors and these were many; all day the livestock ring was full."

Professor John Moxley was mentioned as a strong supporter during its early years. He remembers them well: "My first year on staff was 1947-48, and I became very involved along with Professors Hamilton and Ness and Jim Houston in selecting animals and providing assistance in teaching showmanship. I think the Livestock Show was then and continues to be very useful. It certainly gives the student an opportunity to learn how to handle an animal, and this is probably especially important now when many of the students are not from rural backgrounds."

Professor Tom Hartsock had considerable interest in the event during his time at Mac in the 1970s. In his recollections there were some faculty members serving as advisors and liaison people, "we generally just tried to help the students do what they wanted to do. The show was student organized and run." The Diploma course instructors have always been regular contributors to the show's success.

Within the last 15 years or so support for the show from much of the faculty has

dwindled. In the words of one long-time observer: "a lot got the impression that the show was not really necessary and they weren't too interested. Unfortunately, for a little while, a lot of professors weren't really livestock men - their credibility as far as teaching goes was not to be questioned but a lot weren't from the farm to begin with and were just not interested."

To get the professors to attend the show and have some fun, a staff class has recently been introduced. Amid the serious showmanship classes, the staff provide for some comical relief. The activity is usually the brainchild of a group of students and often the staff have no prior knowledge of what they'll be asked to do. Once in the arena "the cat is let out of the bag!" One year rumour had it that the staff would be asked to show dairy heifers. Each of the professors participating was given a halter and asked to wait in the ring; the cattle would be brought in. To everyone's surprise, when the doors to the arena opened, 20 pigs bounded in; halters had to be traded for canes and the professors faced the challenge of trying to show pigs. Ann Louise Carson ('80) described another year's staff class: "Livestock Club members paired off with agreeing staff members who dressed up as animals and were shown by the students." She, for example, showed Rudi Dallenbach, who was a bull. "Nora Clancy showed Roger Buckland, dressed as a rooster, and Lois Fowler showed Henry Garino, dressed as a pig. Great times!" A hand-milking, milk chugging contest, and various types of relay races have also been tried. Whatever the nature of the staff class, it is meant to provide a good laugh both for the participants and the audience.

The fact that Livestock Shows have been held successfully at Macdonald College for nearly 40 consecutive years is a testimony to the tremendous support given by the Farm Staff to this student endeavour. Each winter when showtime rolls around, the

herdsmen must tolerate considerable upheaval in their regular routine - dozens of students tracking in and out of the barns wanting to clip, wash, or practice leading at all hours of the day, sometimes putting animals back in the wrong places or breaking equipment, needing help with grooming, training, or halter making, or leaving a mess behind. Members of the barn staff could likely fill a book with anecdotes - both funny and annoying! Gordie Beaulieu, chief herdsman, feels that "the high point of the show has to be the swine classes. The pigs come into the ring completely out of control, run around raising the dust, and give everyone a good laugh." He also remembers the student who was being very serious while showing his cow. She wasn't in the same mood and, while passing the trophy table she reached over, grabbed a bouquet of flowers off the table and proceeded to eat them! Frustrating for the students but amusing for the audience, Gordie says, are the countless times that a calf will come into the ring, see the nice shavings and promptly lie down, leaving the showman red-faced as he tries to get her up. Gordie and his crew keep the barn spotless and provide some ringside support on showday. Their cooperation is invaluable. They take their reward in seeing animals and showmen well turned out or in hearing a word of praise from one of the many visitors.

When speaking of staff involvement in the show, many of the people whom I interviewed singled out the late Jim Houston, who, not counting his childhood, spent some 43 years on the college farm. Dick Huggard summed up the feelings expressed by all: "Jim was a great support." He was always there in the barn, often after regular working hours, to help the students with the livestock and to encourage them in their efforts. As Peter Hamilton, '47 grad and former professor in Animal Science and Director of the Diploma Program, so aptly put it, "Jim had a very, very solid interest

in the show. He was a real stalwart guy." On many occasions Jim served as judge. His ability to pick out good showmen and to build the competition to a climax particularly impressed Peter Hamilton. In the final class Jim had each of the top dairy, beef, sheep, and swine showmen come into the arena individually to show their skill at handling the other animals, with the audience watching every move. If two contestants ended the ordeal with identical scores, Jim would suddenly toss each of them a length of rope. The Champion Showman trophy went to the one who could make the best halter quickly. To honour the man who gave many years of dedicated service to the college and particularly the Livestock Show, the Jim Houston Award was established in 1979, the year of his retirement from the Farm Staff. This perpetual plaque is presented to the student who contributes most to the organization of the annual show. Joanne (Enright) van der Linden was the first recipient, Ann Louise Carson the second.

The list of people brought to the college to officially open the Royal or to judge the showmen and the stock reads like a "who's who" of Canadian agriculture. Fieldmen from breed societies, federal and provincial department of agriculture personnel, professors from O.A.C., N.S.A. C., Kemptville, and well known farmers have given time and talent to Macdonald Livestock Shows through the years.

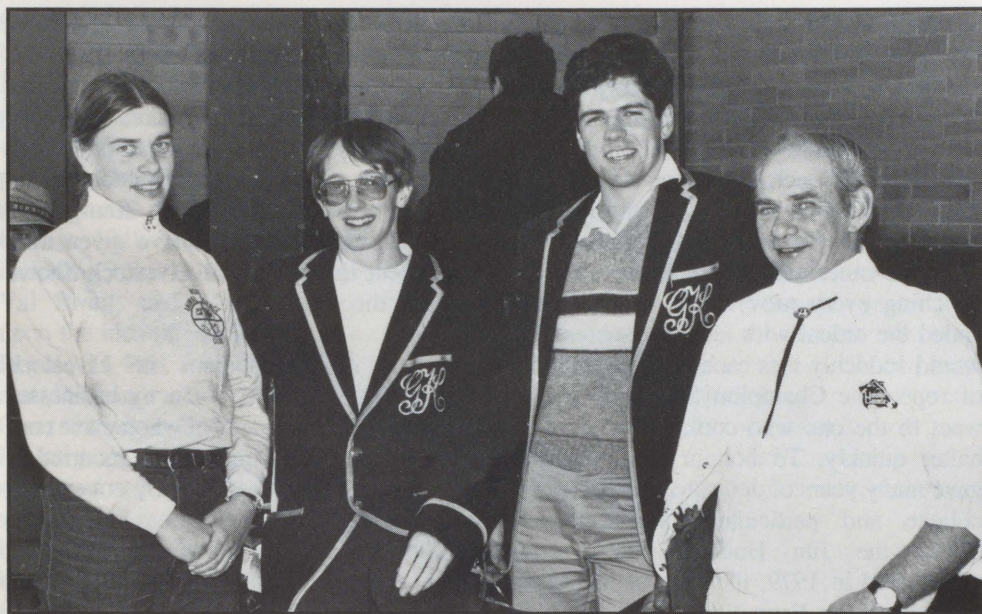
Another vital ingredient in Livestock Shows is the support given by businesses and organizations, many of whom have contributed for a long time. Costs incurred in putting on the show are largely covered by financial donations. Businesses in the town of Ste. Anne de Bellevue and elsewhere often provide merchandise to be given as prizes. Trophies are sponsored by breed associations and agricultural firms. Show organizers are always grateful for these contributions and are happy to welcome company or association representatives on campus to present the awards.



To encourage staff participation in the show, serious staff classes are planned -- without their knowledge! Last year five cat fanciers were not sure whether to use cattle showing or sheep showing rules. Dr. Claire McFarlane was the undisputed winner, but only undisputed by the judge, Dean Buckland.

THROUGH THE YEARS

THE SHOW GOES ON PART II



The author Mary Zillig at last year's show with Dale Burns, Kelley Allen, and Gordie Beaulieu

The show would not be complete without an enthusiastic audience. A 1950 yearbook account of College Royal stated: "The livestock competition drew large crowds as usual." It appears the arena has been "packed," especially during the final classes, in most years at showtime; among the interested spectators: parents, friends, alumni, and school children. Jim Houston told me that there was a lot of interest in the show from the parents. He remembered the novice youngsters. Their parents, mostly from the city, would come out to see their son or daughter participate and they enjoyed it.

Is it Worthwhile?

A review of the history of the Livestock Show provides conclusive answers to the question of value of the event. The college, the participants, and the organizers have all derived benefits from it over the years.

It offers an opportunity for parents, the general public, and agricultural industry repre-

sentatives to visit Macdonald and to meet students and staff. As an "open house" it afford the college, as Marlene MacMillan put it, "an excellent means of public relations." For this occasion, Val Swail recalled the college had to be in "top shape." In the memories of both Val Swail and Marlene MacMillan, the Royal weekend was a chance to see Mac at its best; it brought out a sense of pride in the people who were part of the institution.

The comment most frequently made in interviews was that the show provided a chance for students to gain experience in handling farm animals. Indeed, some refined the relationship with their show animals to an exceptional degree, as for example, A.V. Wan Ping ('48) who was able to bring his pig into the ring and line it up to stand with the cattle and sheep as if it were halterbroke, or Russ Dow ('54) whose lamb followed him around the farm yard! Dow underscored the value of the practical training: "the students had an opportunity to learn much more than theory of text-

books and labs." Acknowledging the need for theory, he pointed out that livestock production, being "a combination of science and the art of husbandry," included an important practical component. Marlene MacMillan recounted how participating in the show was a valuable experience for her as a person seeking a career in agricultural extension. By selecting a different animal to show each year, she acquired skill in handling sheep, pigs, and cattle. Later as a 4-H representative and Provincial 4-H Supervisor in Nova Scotia, she often drew from the experience gained through Macdonald's Livestock Show. She emphasized that no one phase of her college education provided an opportunity to learn these skills.

Jim Feeny also wrote about the value of participation, especially for novice showmen. "It's one thing to see the cows tied up in the barn, but it's a lot better to get out and work with one every day for a month - you learn a lot more." The Judging Competition, coinciding with the show, helps to train the eye to assess physical characteristics, a skill no longer developed in most animal production courses.

The Livestock Show also teaches the students cooperation: in sharing equipment and knowledge of grooming and showmanship techniques, in being part of a competition where there is winning and losing, and in organizing the event. Ann Louise Carson particularly valued this people dimension, saying that one "gets to know so many people in the Mac community - fellow students, farm staff, professors. In meeting people and sharing equipment, knowledge, and good times so many bonds are formed; one is really exposed to the Mac spirit." Val Swail was pleased in how this event brought together students from different options in the college for what he termed "good, clean competition." It was also "a chance to do something different from studies" and "a part of the Mac tradition."

It is also an excellent opportunity to develop organizational skills -- encouraging student and staff participation, obtaining support from companies and organizations, inviting official judges, and planning and running a program. Reflecting on her experience with this aspect of the show, Ann Louise Carson wrote that "yes, the organizers had twice the work of a regular participant, but they also enjoyed twice the rewards." Jim Houston noted that in organizing the event students gained experience that stood them in good stead following graduation. "These people are the leaders when they go back to the community."

Almost 40 years of Livestock Shows have accumulated many anecdotes and personal memories. To those who have shared theirs with me, I express my sincere thanks. To those former participants who, for one reason or another, I did not contact, my apologies. Your stories remain to be told.

GETTING THE STORY

An unusual statement, perhaps, but I am somewhat sorry to see this article in print as it means the end of more than two years of letters and memos as well as in-person conversations between the author Marg Zillig, BSc (Agr) '84, and me as she has been conscientiously working on putting together an excellent history of the Livestock Club.

As well as updates on the article's progress and the addition of new sources of information to be pursued, I learned something of Marg's home where she helps out in her spare time. She's from a 100-hectare mixed family farm in Scotch Village, N.S., where her family raise sheep, pigs, waterfowl, and a few head of cattle.

Marg graduated from the Nova Scotia Teachers College in 1979 but found herself attracted to a career in agriculture and thus

spent two years at the Nova Scotia Agricultural College before coming to Mac. She has returned to NSAC as a Teaching Assistant in the Animal Science Department, and I have thus received news of people and events on that campus through our letters. She, in turn, has kept up with some Mac news.

In one of her latest letters Marg made an interesting comment based on information she had received from Marinus van de Sande concerning the President's cane. "During my two years at Mac," Marg wrote, "I never heard of it. I wonder whatever became of it?" According to Mr. van de Sande, it was given to the College Royal President each year and was engraved with his or her name. "It was presented to me," he wrote, "during the annual ceremonies by the past president of the Royal. When I received it in 1964, it had already been in existence for

three or four years. I presented it to Bob Robson in 1965. If I remember it correctly, it was a straight cane with a silver knob at the top. It was a nice symbolic gesture." If anyone has any more information about this cane, we'd love to hear about it.

Appropriately Marg Zillig handed me the manuscript for this article at last year's Livestock Show when she was up with a group of NSAC students who were competing in the Judging Competition. Thanks to all who, with their letters and personal interviews, helped Marg put this together. Thanks Marg for this. If we can come up with another article idea, possibly our correspondence can continue. I certainly hope the jars of homemade jelly continue to arrive at showtime!

Hazel Clarke

Continued from page 39

available for plant nutrition as nitrate has been known for a century, but the application of this finding to crop production has been difficult. We are providing equipment to update the facility for the production of rhizobium inoculum. In addition it is planned to set up a Biological Nitrogen Fixation Unit to investigate the problems associated with this technology.

Biogas

The production of gas from decomposing wastes is of value to farmers who can use the cheap energy for many purposes. A project is underway on this problem.

Cotton

High quality long staple Egyptian cotton has been widely acclaimed for a century and is currently a very important source of foreign currency. The equipment to monitor and test the quality of this commodity has

Communications

We hear much about rapid communication these days. One of the major successes of the program is the rapidity with which the Field Office in Cairo and the Head Office at Macdonald can communicate. At 08:00 hours in Montreal it is 15:00 hours in Cairo. The personal computers are switched to the telephone modem link. Previously prepared diskettes transmit one or a hundred pages of information in both directions rapidly and cheaply. The system was set up by Terry Monteiro of the Accounting Department and we now have financial data updates as required. This is believed to be a first in any CIDA project. The technology of word processing and data handling by personal computer is an axis of development that we are planning to set up in the Ministry of Agriculture to assist them at many levels of management. We are happy to report progress in many areas in our first few months of operation. A vast amount remains to be done

NEWSMAKERS

ON CAMPUS

EMERITUS PROFESOR KEITH KEVAN was invited to accept Fellowship of the Institute of Biology, London, England.

The Annual Nutrition Research Award for the best published paper in the journal Nutrition Research in 1985 has been given to Dr. S.I. Barr and DR. H.V. KUHNLEIN, Director of the School of Dietetics and Human Nutrition, for their paper entitled, "High Density Lipoprotein and Total Serum Cholesterol Levels in a Group of British Columbia Native Indians."

DR. F. R. VAN DE VOORT has been appointed Chairman of the Department of Food Science and Agricultural Chemistry, effective December 1, 1986.

ANNE CARR, a third-year student from Sussex, N.B., who is majoring in Animal Science, has been awarded the G.B. Whalen Scholarship which is presented by the New Brunswick Milk Marketing Board.

From the Department of Plant Science we learn that BRUCE GRAY was awarded the PhD degree at Fall Convocation. After a short assignment in Thailand, Bruce was to resume his teaching career at NSAC. CLAUDEL LEMIEUX AND JUAN ORMEÑO NUÑEZ successfully defended their PhD theses in late November. Claudel has returned to Quebec City where he has a position with Agriculture Canada. Juan was returning to Chile where he has a position with the Instituto de Investigaciones Agropecuarias.

And former graduate student LOUISE O'DONOUGHUE, is at Cambridge University, England, where she is carrying out research in cytogenetics for her PhD degree at the Plant Research Institute.

The Dairy Herd Analysis Service (DHAS) has welcomed two recent grads; PASCALE MAYNARD, BSc (Agr) '86, has joined the Planning and Development group and

MANON DEMERS, Dip '86 has become an editor.

CNE SCHOLARSHIP AWARD

Sandra Smith, a member of the Quebec Young Farmers Federation and a third year Animal Science student at Macdonald had a fantastic all-expenses paid trip to the Canadian National Exhibition in Toronto last August. But that's not all. Sandra was the Quebec recipient of the 1986 \$1,000 Scholarship Award, which is presented to a second or third year student studying agriculture.



Sandra was one of 10 delegates from across Canada chosen by the Canadian 4-H Program to spend four hectic but exciting days at the CNE. "We were treated to dinners, including dinner theatre, to the grandstand show which featured Elton John, a tour of the fair grounds, a part in the Agriculture Day Parade of Champions, a helicopter ride, and a tour of several Toronto landmarks," Sandra said. "And, of course, the big occasion was the scholarship presentation which was held during the Directors' Luncheon on Agriculture Day. The guest speaker, Dr. Freeman McEwen, [BSc (Agr) '50], Dean of the Ontario Agricultural College, presented each one of us with our scholarship award - a fantastic help to any

student and a wonderful bonus to four great days!"

OFF CAMPUS

JIM LANGILLE, BSc (Agr) '49, retired recently from the Nappan Experimental Farm in Nova Scotia.

DR. FREEMAN McEWEN, BSc (Agr) '50, is Chairman of the Ontario Institute of Agrologists' task force on the future of Ontario agriculture.

RUSSELL DUCKWORTH, BSc (Agr) '51, Executive Director of the Ontario Ministry of Food and Agriculture's Marketing Division, is Chairman of the steering committee of Ontario's Marketing Assistance Program for Pork (MAPP).

DR. ROGER PAQUIN, MSc (Agr) '51, PhD '55, has retired after 37 years service with Agriculture Canada in Ste-Foy, Que.

Mike Hidioglou and KEN JENKINS, BSc (Agr) '51, Agriculture Canada Research Branch scientists were the joint winners of the Merit Award given for their part in one of the outstanding success stories in Canadian agriculture - the discovery that a deficiency of selenium in the diet of Canadian livestock causes muscular dystrophy and other serious nutritional diseases. Correcting the problem was not easy as the use of selenium had not been cleared as an additive to animal feed. After exhaustive studies the two scientists devised safe and efficient ways to add selenium to animal diets and then obtained approval for its use. Research in this field in many countries is based on their published results. Their results have meant fewer problems in raising livestock and a saving of millions of dollars each year in the cost of production; it has meant more reliable, better quality feed, and it has also meant higher quality animal products at lower cost.

KEEPING IN TOUCH

DR. E.J. LeROUX, BSc (Agr) '52, PhD '54, DSc '73, was presented with the Entomological Society of Canada's Gold Medal for outstanding achievement in entomology. He was also presented with the Golden Award of the Canadian Feed Industry Association. Dr. LeRoux is on pre-retirement leave from his position as Assistant Deputy Minister of Agriculture Canada's Research Branch. As an entomologist with Agriculture Canada, Dr. LeRoux was the first Canadian to study population dynamics of insect pests of apple orchards. He applied the "life table" approach that he was developing at the time with colleagues in the Department of Forestry. He received international acclaim for this research. He is also the author of more than 100 scientific articles, as well as a contributor to three books on insect ecology and physiology.

Ed spent from 1962 to 1965 in the Department of Entomology at Macdonald College where he guided students, mostly in the PhD program, and continued his research. He then returned to the Research Branch of Agriculture Canada to take up the position of coordinator of entomological research. In 1968 he became assistant director general of the Research Branch and in 1975 director general (operations). In 1978 he was appointed to the position of Assistant Deputy Minister, head of the largest research establishment in Canada.

LLOYD MacLEOD, BSc (Agr) '52, MSc (Agr) '53, was recently installed as President of the Rotary Club of Charlottetown, P.E.I.

DR. DONALD YOUNG, BSc (Agr) '52, Head of the Canadian potato breeding program at Fredericton, N.B., was elected President of the Potato Association of America at the society's annual meeting at Cornell University.

ERIC COMEAU, BSc (Agr) '53, Superintendent of the La Pocatiere Experimental Farm, was presented with the Ordre des agronomes du Quebec's Medal of Distinction for his outstanding extension work. The OAQ also recognized his influence on Quebec agriculture and his important research studies on the cultivation of cereals, potatoes, and cigarette tobacco.

DR. IAN DE LA ROCHE, BSc (Agr) '63, has been appointed to the newly created post of Director General, Priorities and Strategies, for Agriculture Canada's Research Branch. Dr. de la Roche, was Director of the Plant Research Centre in Ottawa.

WAYNE CLARK, BSc (Agr) '67, won first prize in the 1986 writer's competition co-sponsored by the Association of Quebec Regional English Media (AQREM) and the Bell Foundation. Wayne, a Lachute-area farmer, topped 21 entrants with his weekly column "Good Fences" which appears in *The Lachute Watchman*, one of AQREM's 14 member papers. The award is based on excellence of writing style and relevance of the material to the community newspaper's readers.

LAURIE ELLS, BSc (Agr) '68, has assumed the responsibility of Agricultural Representative for Annapolis County. Since joining the N.S. Department of Agriculture and Marketing in '68, he served as Ag Rep in the Sydney office, and in '77 became the Ag Rep in Bridgewater.

BERTRAND FARMER, Dip '75, BSc (Agr) '80, MSc (Agr) '85, has accepted a position with the Institut de technologie agriculture et alimentation (ITAA) at St-Hyacinthe, Que. He is teaching animal nutrition to students in a three-year CEGEP program in animal science. Bertrand was Director, Farm Practice, for the Diploma Program at Macdonald.

LEONARD LEONCE, BSc (Agr Eng) '77, is the project manager of St. Lucia Model Farms Ltd., one of the eastern Caribbean's most productive growers of fruits and vegetables.

JOE CALDER, BSc (Agr) '78, is the N.S. Department of Agriculture and Marketing's Assistant Agricultural Representative in the Middle Musquodoboit office. He has worked in agricultural sales positions in N.B., and joined the Department in '85 as Assistant Ag Rep in Cumberland County.

ARTHUR PICK, BSc (Agr), '81 is the new Agricultural Representative in Bridgewater, N.S. His first appointment with the Department of Agriculture and Marketing was in '81 as a 4-H Representative for Cape Breton Island; he has served as Assistant Ag Rep in Truro for the past two years.

YVONNE THYSSEN-POST, BSc (Agr) '82, has been appointed to the position of Assistant Agricultural Representative for Colchester County. For the last four years with the N.S. Department of Agriculture and Marketing she has been Assistant Ag Rep in the Halifax, East Hants, South Colchester area.

PAUL JENSEN, BSc (Agr) '82, MSc (Agr) '85, is manager of customer service with Ball Superior in Mississauga, Ont.

ALBERT ST. CLAIR, BSc (Agr) '82, MSc (Agr) '85, has been named Acting Chief Extension Officer of the St. Lucia Ministry of Agriculture and is responsible for the agricultural school.

PETER STEVENS, BSc (Agr Eng) '84, former Manager of Preparation at the Campbell Soup Company mushroom farm in Wellington, Ont., is now Farm Manager of their mushroom farm at Oakville, Man.

YVES LAQUERRE, BSc (Agr Eng) '86, won third place in the American Society of

NEWSMAKERS

Agricultural Engineers' National Student Design Competition. This is the first time a Canadian student has finished in one of the top positions in this competition. The title was "Design of a Machine to Invert Windrows."

DECEASED

FRANCES (POLLOCK) JARDINE, Dip (HEC) '21, of West Branch, Michigan, on August 26, 1986.

DORIS. B. (DEVITT) GRIERSON, BSc (HEC) '46, at Toronto, Ont., on October 1, 1986.

ROBERT H. LOCKE, Dip '51, of Coldwater, Ont., on August 9, 1986.

FRANK O'CONNOR, of Yiewsley, Middlesex, England, on April 23, 1986. Mr. O'Connor was dairy cattle herdsman at Macdonald from September 1953 until May 1961.

WHAT'S HAPPENING?

Where are you? What are you doing? What have you heard about your fellow grads? New jobs, promotions, awards, retirements. From a first job, through all the steps up the ladder, to retirement, and post-retirement - keep us informed on what's happening so we can pass the news along on these pages to your fellow grads. Any news you would like to share with us would be welcome. We delight in hearing from you and about you. Send information to: Hazel M. Clarke, Editor, The Macdonald Journal, Box 284, Macdonald College, Que., H9X 1C0

COMING EVENTS, 1987

February 4 QFA Dairy Day

February 6 Official Opening, new Cattle Teaching and Research Facilities, and celebration of Founder's Day

February 6 - 8 Macdonald College Royal & Livestock Show

March Macdonald Seminar (McGill Campus) for McGill Associates

March 7 Drawing of winning raffle tickets for Bateman prints, Centennial Centre. Raffle in aid of Macdonald Raptor Research Centre.

April 15 Athletic Awards Banquet

May 4 - 22 International Drainage Course

May 7 Visit to Arboretum of Competitors for the 1986 Merite Forestier and the Minister of Forestry, Albert Côté.

May 11 - 14 Quebec Women's Institutes Annual Convention

May 18 - 22 Agricultural Engineering staff at Canadian Engineering Centennial Convention, Montreal Convention Centre, Montreal

June 5 Convocation

August 14 - 15 International Mastitis Symposium held in conjunction with International Veterinarians Congress, Montreal, Que.

September 23 A visit to the Arboretum of a group from FAO on a pre-seminar tour

September 26 Macdonald Graduates Reunion

October Annual Meeting of the Entomological Society of Quebec

November 4 Quebec Farmers Association Annual Meeting

November 5 Scholastic Awards Banquet

November 28 Annual Handicraft and Christmas Tree Sale, Morgan Arboretum

MAC GRADS' TEST-TUBE BABY - A FIRST FOR A MONTREAL HOSPITAL

Our congratulations go to NORMAND RENAUD, BSc (Agr) '80, and SYLVIE DESMARCHAIS, BSc (Agr) '78, MSc (Agr) '82, and to baby Audrey, born in St. Hyacinthe on December 21, 1986, at six pounds, 10 ounces.

Audrey is not the first test-tube baby born in the Montreal area, but the hospital where she was conceived in a laboratory dish - St. Luc - is the first hospital in the Montreal area to establish an in vitro fertilization program, and she and her proud parents made front cover "colour" news in the January 7, 1987 Gazette. As the couple, who have tried unsuccessfully to start a family for some time, work at the Centre d'Insemination Artificielle du Quebec at St. Hyacinthe, they were able to understand the procedure explained to them by the staff at St. Luc's Hospital and were willing to take part in the fledging program.



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KEEPING IN TOUCH

Gray's Elegy or Quebec?

When reading the article on Irving Layton in the August Journal, I recalled the time when Irving and I managed to emerge successful from a debate against Oxford and Cambridge.

According to my recollection we defended the resolution "It was better to have written Gray's Elegy than to have conquered Quebec," and we put a good deal of preparation into our case. I opened for Macdonald and also had the final three-minute summary, and Irving was our second speaker. Certainly we were very pleased with the result, and it was my impression at the time that "Lazy" would have been given the greater credit for our success.

Irving Lazarovitch or Lazy as we called him had an undisputed gift of the gab, with his remarkable ability to remember history or literature and sport bits of each that he either remembered or concocted on the spot to further any cause he supported.

Lazy joined our Literary and Debating Society in which he became volubly active, not restrained at all by his seniors. I liked Lazy because lively and humorous he was and, of course, still is, but couth he was not, nor has he appeared to have changed from some of the things I've heard and read.

Robert Flood, BSA '35
Waterloo, Que.

A Special Cover

I would like to express my appreciation for the Journal which I have been receiving for a long time. I found the cover on your November issue very special. and as an artist myself, I would like to offer my warmest congratulations to Steve Tinker for his beautiful drawing.

Janina Grygar
South Bolton, Que.

Always Enjoyed

Please renew my two subscriptions. We always enjoy getting the Journal.

Robert McElroy,
Lachute, Que.

Keep it Up!

I am a faithful subscriber to the Macdonald Journal and would like to take this opportunity to congratulate the Journal staff on a job well done. Keep up the good work!

Anne-Marie Melnyk
Hull, Que.

First Issue

The same message "I'm looking forward to receiving my first issue" from two new subscribers:

Denise Prairie, BSc (Agr Eng) '84
Kitchener, Ont., and
Nancy Kent, BSc (Agr) '86
Truro, N.S.

Thanks for the PS

Regards and keep up the important work!

Bruce Wiliamson
Beaconsfield, Que.

Keeps Me Informed

I enjoyed reading the Journal very much. I think it is the most informative alumni publication I receive. It really keeps me informed of goings-on at Mac. Keep up the excellent work.

Scott Smith, BSc (Agr) '74
Whitehorse, Yukon

A Nice Mix

We received our latest issue and wanted to let you know how much we enjoy it. You have managed to achieve a really nice mix of general interest and scientific information. It is also nice to read about recent grads as well as some of the earlier ones. It seems that each issue contains information about a number of people that we know.

Joanne Enright-van der Linden, BSc (Agr) '80
Antigonish, N.S.

Impressed

I was loaned a copy of the November Macdonald Journal to read the excellent article about the McEwen brothers and was so impressed with the whole magazine that I would like to take a subscription.

Elizabeth R. Roy
Ormstown, Que.

TRAVAUX GAS

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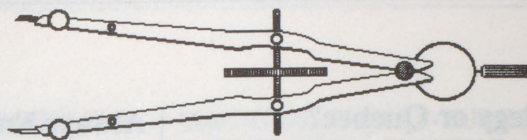
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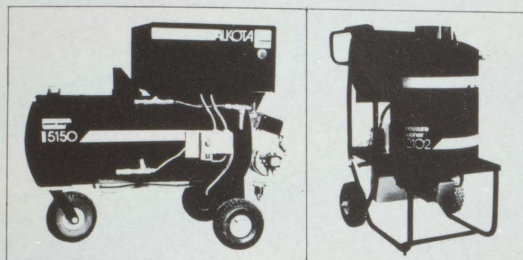
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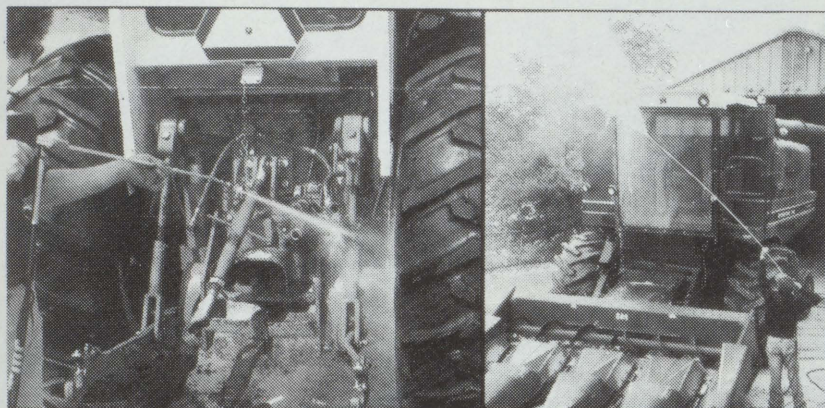
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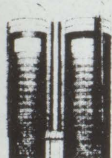
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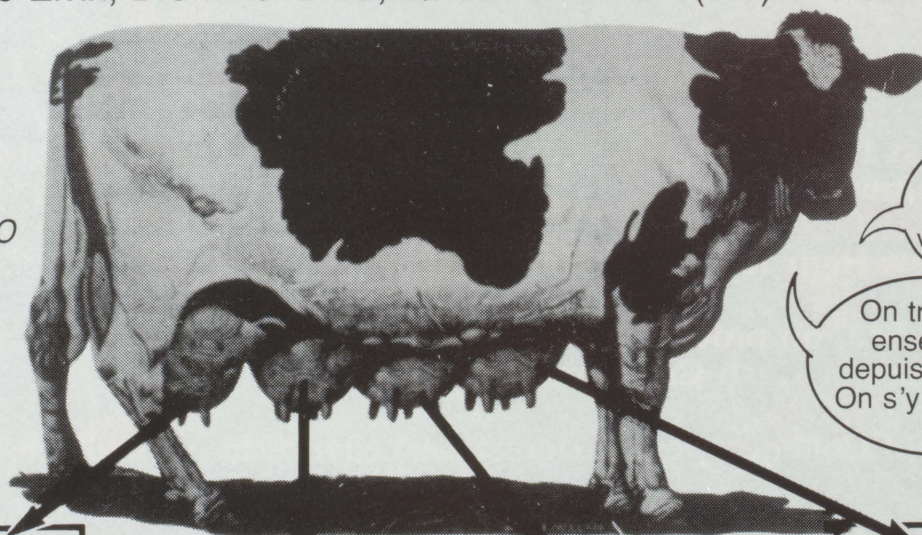
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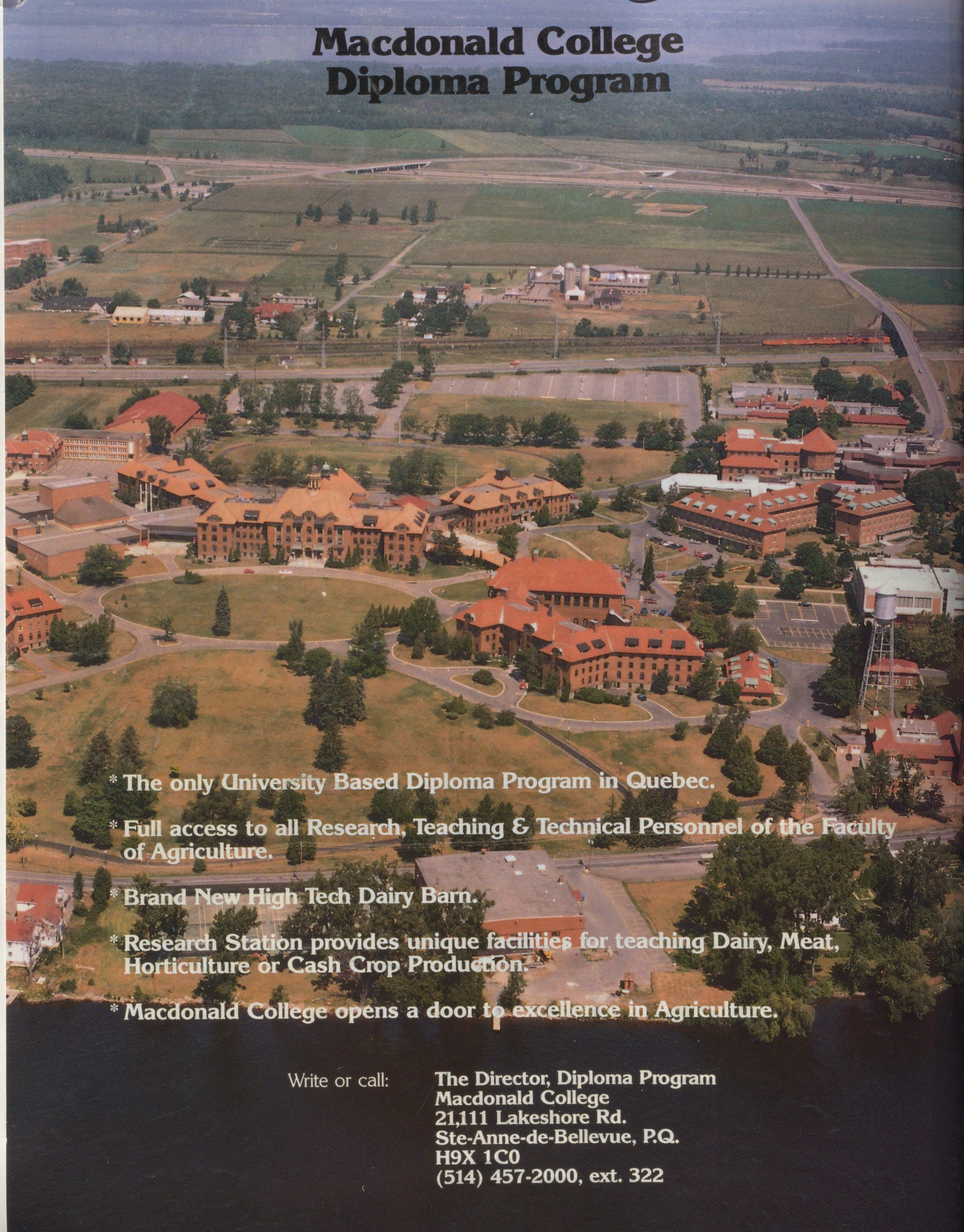


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